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American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO., NO. 9 SPRUCE ST.

Saturday, September 30, 1854.

New York and New Haven Railroad.

Below we give the report of the Directors of the New Haven Company in reference to the recent over-issues of its stock by its late President, Mr. Schuyler, with a *legal opinion* that the Company are not liable therefor.

The report contains nothing that the public did not know within three days after the fraud was discovered. It merely repeats the statement then put forth by the Directors as to the nature and extents of the frauds, with expressions of astonishment, that a man of the vast integrity and credit which Mr. Schuyler enjoyed could commit them.

The report is characteristic of the parties making it. It is a studious attempt to conceal, if not to suppress facts material to be known. The fraud having been committed, *somebody* having lost money, the responsibility created is the great matter to be determined. The public wish to know when the over-issues commenced, whether they were entered upon the Books of the Company, and whether the Directors could have discovered them by the exercise of due diligence, before

they reached the enormous amount of \$2,000,000, as it may become a question whether the *directors* are not liable, if not to the holders of the spurious stock, to the company. It is also important that the *sums* in which the issues were made should be known, as well as the parties who received them, that the public, or a jury if need be, may judge whether from the relations such parties sustained to Mr. Schuyler, they took with an actual or implied *notice* of the fraud. Such are some of the questions which the directors should have answered. The public want something more than the re-announcement of the fraud. They want to know all the circumstances attending its commission, as aids toward forming a correct opinion as to the liabilities involved.

The only fact that the directors offer in *self-vindication* is the previous character that Mr. Schuyler enjoyed for "perfect honor and integrity." Judged by their standard, Mr. Schuyler may have been the man described; but with men of another standard he was a very different one. To hold the office of *President* of a road, and to be privately interested in a contract for its construction, as it is generally believed Mr. Schuyler was, is incompatible with "perfect honor and integrity," and is so regarded by the public, which had pronounced a *different* judgment from that of the directors long before the final catastrophe. It was well known that Mr. Schuyler's path had been strewed with the fleshless skeletons of the roads with which he had been connected. By sagacious men the fact that Mr. Schuyler had had the control of a road, was considered as a sufficient reason against purchasing its securities. We should like to have the directors point out some monument of his marvellous integrity, and wonderful administrative powers of which they speak so eloquently. We think the history of the New Haven Railroad, with which work he was connected from the outset, well illustrates the degree in which Mr. Schuyler possessed both of these qualities. The road was let in a *gross* contract; the contractors to do the engineering; both evidences of fraud which can hardly be rebutted. The result was a miserable road at enormous cost. A faulty construction has been the source of a constant outlay to repair and correct the mischief

that had been done, while the general tone of its management has been far below the average standard. The capital account exceeds nearly twice what the actual cost of the road should have been; the balance having gone into the pockets of Schuyler and others. As President and Chief Manager of the road, Mr. Schuyler could not have been interested as contractor, and have made a large sum by so doing without a prostitution of his office; just as much so as if the Comptroller of the City should enter into copartnership with contractors upon the streets or public buildings. The offence is not quite so glaring in one case as the other,—only from a vitiated public sentiment. A man who will do this, is not only wanting in integrity, but in a decent regard for his own reputation. A President of a road whose sense of obligation of what he owes to his position and the public, is so weak, that he will secretly prostitute that position to his private advantage, will do a worse act under the pressure of a greater temptation or necessity. The apparent success of Mr. Schuyler, and his reputed great wealth, shielded him from general animadversion. Now that he has fallen, the public tongue is loosed to express only its previous convictions. He was not a man of integrity. He was a versatile plausible man, without sagacity or judgment as his whole career shows. We should like to know one thing which he did that was *well done*. He owed his influence to the fact of being the pet and favorite of a rich and powerful clique, by which he was advanced to positions of great trust and emolument. We know it to be ungenerous to speak harshly of a fallen man, and would not so freely in the present instance, had we not often in the height of his popularity expressed similar opinions both in the JOURNAL and otherwise.

The report of the directors is accompanied by the opinion of two able lawyers that the Company is *not* liable on account of the frauds—not for the stock, for the reason that the entire amount authorized had been previously issued—nor for the money received by Mr. Schuyler, for the reason that in selling the spurious stock, and in receiving money for the same, he did not presume to act as *agent* of the Company. There is no fallacy in this reasoning upon the *premises* assumed;

and upon similar premises, we took a similar view of the case in an article in the *JOURNAL* of the 16th of July, immediately after the discovery of the fraud. We are not certain that the opinion then given is not correct. But there is a view of the case which we did not then present, and which is not presented in the above opinion. It is undoubtedly law, that an agent can bind his principal only within the scope of his acknowledged duties. *But if the principal invests the agent with such powers, and allows him to transact his business in such a manner, that a third party cannot determine between a fraudulent or authorized act, may it not be a question whether the principal be not equally bound by both?* It is a legal maxim that a person shall not be relieved from the consequences of his own wrong. Thus if A. B. sell a horse belonging to C. D., to a third party, C. D. standing by, and not protesting against such sale, he is bound by it: not that A. B. was his agent, but that he consented to the wrongful act. The opinion is not alluding to this opposing view of the case, which is not only very obvious, but very hard to answer, must be regarded as *ex parte*; and perhaps might have been directly the reverse, had the lawyers been employed by the other side. It is an argument, not a judgment in the case; and as such, is very proper, if the directors, or the company seek to get rid of liability.

Another fact which may have a bearing upon the case is the high character which the stockholders had previously given of Mr. Schuyler, as testified by his long continuance in office, and by a direct expression of their opinion. We know how resolutions like the one passed in his favor in 1849, are got up, and that they are often a part of the machinery which a designing man uses to accomplish his objects, rather than the unbiased opinion of those by whom they purport to be offered. The resolution referred to may not have been the act of one in fifty of the stockholders; yet it must be taken as the opinion of *all*, as bound by the proceedings of a properly constituted meeting. *If the stockholders have held Mr. Schuyler up to the public as a man in whom extraordinary confidence was to be placed, are not the public justified in taking their certificate of the good character of their agent without further inquiry?* If their acts tended to allay ordinary suspicion and inquiry, are they not to be bound so far as they mislead the public? If Mr. Schuyler had been an agent only recently employed by the company, then the public might have justly been censurable in trusting too credulously to a new man. We make the suggestions for what they are worth without asserting that they are a full answer to the arguments presented on the other side.

It may turn out that the holders of the stock received directly from Mr. Schuyler will be regarded in a different light from purchasers at second, or third hand. As between these, and the holders of the bona fide stock, we think the former entitled to the greatest sympathy. We think the bona fide stockholders deserve a moderate punishment at least, for the entire indifference which they have manifested to the management of their property. It is most extraordinary, and more inexplicable from the fact, that so many of the bona fide stockholders are Connecticut men. We do not believe there was ever another instance in which

a property equal to \$6,000,000 was entrusted to a directory owning only \$20,700 of it. A directory composed neither of Clintons nor Fultons, but men whose highest ambition is to serve themselves, and who from their immense wealth, and the pressure of their own affairs, would not collectively have given a day of genuine service to the road, at the price of all the stock they held. We mean no other reflection than that men who have no interest in an important work, and who do not expect to give any time or attention to it, have no right to be in its management, and would not, if they possessed the highest moral sensibilities. The object and result of all such sinecures is a fraud. Men are constantly importuned, and allow themselves to be placed in influential positions in which they are promised an entire exemption from all labor and care, for the purpose of adding credit to a company or scheme. The public accustomed to confide in such men, in private relations, transfer such confidence to the institutions or projects with which they see them connected, but in the service of which, not one quality which secured this confidence in the outset, is put forth. In other words, men are accustomed to sell or give away their reputations, to aid or oblige a friend. We cannot regard the connection of the directors of the New Haven Company with this road in any other light. The result in this case places such conduct in its true view. Had the directors felt, or exercised, an ordinary interest in the road, we do not think it possible Mr. Schuyler could have committed his fraud. Had he been closely watched, the idea would never have entered into his imagination. The entire immunity he enjoyed was the cause of his fall; and morally the directors are responsible for every cent that has been lost. An ordinary vigilance would have prevented any such loss. By becoming directors they assumed to exercise such vigilance; and by not doing so, they have been guilty of a direct breach of trust.

If stockholders in a road will allow themselves to be fooled and their interests trifled with in the manner that the New Haven stockholders have done, they have no cause of complaint save against themselves. If they will put in as directors, men who have no interest in their road, and who feel none in its success, or management, they must take the consequences. They must have for years seen that they have been most outrageously swindled by the excessive cost of construction, the profits of which must have been pocketed by somebody. If they had not the force, or did not feel sufficient interest to see where the money ostensibly spent in construction went, we do not see why they should be particularly incensed at the last catastrophe, which is only the culmination of numerous smaller ones.

But we have said enough. We will now proceed to the—

REPORT.

The Directors of the *New York and New Haven Railroad Company* submit to the stockholders the following report, in relation to the issue of fraudulent stock by their late President.

Robert Schuyler was first appointed the President of the company on the 19th day of May, 1846, and by successive and unintermittent elections he has held the office up to the 3d day of July last, when he sent to one of the members of the Board a letter resigning his office. During

that period of eight years, and up to the discovery of his recent frauds, he had sustained the highest reputation for intelligence and integrity, and was particularly distinguished for his experience and skill in the construction and management of railroads. An abundant evidence of this is found in the eagerness with which his services and advice were sought on these subjects, and the numerous lucrative and responsible railroad offices he has held during that time, and the powerful influence he has always exercised in their government.

While President of this company he was of course its chief executive officer, exercising the principal powers of the corporation, enjoying the full confidence of the company and of the Directors, who never had, until the recent discovery, the slightest doubt of his perfect integrity and honor.

As some evidence of the estimation in which Mr. Schuyler was held by the stockholders, we refer to the following resolution, passed unanimously at a meeting of the stockholders held in November, 1849.

Resolved, That the stockholders have entire confidence in the President and Board of Directors, believing them to have executed the important trust committed to them not only with zeal and fidelity, but with high intelligence.

It is apparent from the repeated and unanimous votes by which Mr. Schuyler has been constantly re-elected, that his conduct as President has met the approbation and confidence of the stockholders.

Mr. Schuyler was also the Transfer Agent of the company from the commencement of its operations. The company being a Connecticut corporation, its principal office was necessarily in that State.

The principal part of its business, however, was transacted in the City of New York; its offices were practically there. Its principal stock account was kept there, and Mr. Schuyler, when acting in that capacity, exercised the office and duty usually intrusted to one of the highest officers of all such corporations.

The provision for the transfer of shares in New York was such as obtained generally in that city, except the greater security that the Transfer Agent was a Director and President of the company, possessing its unlimited confidence and that of its stockholders, and was not a mere clerk or agent employed at a salary. His duties and powers as such were clearly marked out by the By-Laws of the company. No greater guards could have been thrown around the execution of his duties, unless they were such as to imply entire unfitness for any position of trust; and his fall struck the Directors, as it did the community, with profound astonishment.

The large sales of the company's stock had attracted the attention of one or two of the Directors as early as the 29th of June, but no suspicions were entertained by any one of Mr. Schuyler's integrity, or that anything was wrong in the management of the company, until the forenoon of the 3d of July, 1854, when a member of the Board met Mr. Schuyler's legal adviser, on his way, as he said, to deliver a letter to the Board, inclosed in a sealed envelope addressed to another Director, who was then out of town. The bearer of the letter intimated that it contained some information in regard to an over-issue of stock, but declined delivering the letter, and it was not received by the person to whom it was addressed until the next day. The Director with whom this conversation was had took immediate possession of the stock ledger, and with several other Directors spent the 4th of July in examining them. The fraud was then discovered, and notice given of it on the morning of the 5th of July, upon the several bulletins. The following is a copy of the letter:

"NEW YORK, July 3, 1854.

"GENTLEMEN: I beg to resign my seat in the Board of Directors of the New York and New Haven Railroad Company, also the office of President, and the appointment of Transfer Agent of

the company. Your attention to the stock ledger of your company is essential, as you will find there much that is wrong. The details can be furnished you with precision, though I cannot do so. In reference to the connection of these transactions with R. & G. L. Schuyler, I wish to make my solemn assurance that in no way has my brother been concerned in them, nor has he ever known or been informed of them; in fact there was no mode in which he could obtain information except from myself and I have ever been quite as careful to keep him in ignorance as any other person. He could not even have ascertained the facts from our own books and accounts and to those of the New Haven Company in my charge he had no access.

"Your ob't servant,
ROBERT SCHUYLER.

"To the Directors of the N. Y. and N. H. R. R.
A notice was also given in the newspapers on the evening of the 5th of July, in these words:

"New York and New Haven Railroad Company.—At a meeting of the Board of the Directors of this company, held this morning, it has been made apparent, on a hasty examination of the stock books, which have been kept by the late President, Robert Schuyler, as Transfer Agent in New York, that by means of false entries, erasures, and other similar practices, an issue of illegal and fraudulent stock has been made within a few months past, to the amount as nearly as can now be ascertained of nearly twenty thousand shares, or two millions of dollars. A rigid examination will immediately be made, by order of the Directors, of the books and papers and the result, when accurately ascertained, will be made public.

"In the meantime the transfer books are closed, by order of the Board.

"By order of the Board of Directors:

"W. W. BOARDMAN, President, *pro tem.*"

"New York, July 5, 1854."

The Directors also took legal advice as to the duty devolving upon them in the emergency, in pursuance of which they appointed a committee to examine the stock accounts of the company, to ascertain precisely the amount of capital stock then outstanding, and how much of the same had been fraudulently or improperly issued, and make a report as soon as possible. As soon as proper assistance could be procured, the committee entered upon the discharge of their duties, and the result of their investigation is contained in the report herewith submitted. By this it appears that the genuine capital stock of the company consists of 30,000 shares of \$100 each, amounting in all to \$3,000,000. That Mr. Schuyler has issued false certificates, purporting to be certificates of stock to the firm of R. & G. L. Schuyler, of which he was a member, and also has fraudulently issued other like false certificates to other persons whose names appear in the Report, amounting in the whole, between the 18th October, 1853, and the 3d July, 1854, inclusive, to 17,732 shares. Besides which there are outstanding certificates in the name of R. & G. L. Schuyler covering 1,648 shares, and in the name of R. Schell & Co. 160 shares. The stock which these last certificates originally represented has been transferred by R. & G. L. Schuyler and Schell & Co. without surrendering the original certificates, and the persons holding these certificates have no such stock to their credit on the books of the company. Of the fraudulent stock, 9,283 shares now stand upon the books of the company in the names of parties to whom they were transferred and issued by R. & G. L. Schuyler. Of the outstanding certificates in the name of R. & G. L. Schuyler, 872 of the 1,648 shares were issued after they had overdrawn their account, which first occurred October 18, 1853. And those in the name of R. Schell & Co., 160 shares, were all for spurious stock. Much time has been consumed in this investigation, but it could not have been done in a shorter period.—The Directors believe that the results are accurately ascertained, and that the report presents the facts as they now exist.

An exceedingly important question arises from

these facts. Are the holders of these false certificates of shares to be regarded and treated as stockholders of the company? Upon this subject, and the other matters connected with it, the Board submits herewith the opinion of their counsel. They say that no power short of the Legislature of the State of Connecticut, with the assent of the stockholders, can increase the capital stock. And that the fraudulent acts of an officer, so greatly transcending any power conferred upon him, or which the Directors or the company could confer upon him, do not bind or implicate the company in any way.

With these facts and opinions before them, the Directors have called a special meeting of the stockholders, at the earliest moment the By-laws would allow to ask their advice and assistance.

The questions arising are so interesting and important, and involve so great an amount of pecuniary interests, that the Directors, whatever may be their individual views as to the duties and obligations of the company, decline to make any decision, or to express any opinion in regard to them, for independent of any doubt of their power in the premises, and of any validity to be accorded to their determination, whatever they may believe justice and equity to require, they feel themselves concluded, by the opinion already referred to, from taking any direct action upon the subject, and they submit the whole matter to the action of the stockholders.

Upon one point, however, which is in the nature of a preliminary question, and which must be settled before the others can be legally taken up, there appears to be no reason for a difference of opinion. A meeting of the stockholders must be legally constituted. Hence, who are the legal members of the corporation and entitled to vote at its meeting, is an important inquiry, and must be answered before the meeting can be properly organized. The charter describes the members as holders of the shares of the capital stock, and this capital stock it limits to 30,000 shares. It then declares that "each share shall entitle the holder thereof to one vote."

It seems, therefore, that none but the holders of the original 30,000 shares and their successors can be members of the corporation, and authorized to vote at its meetings. The charter and the by-laws of the company direct how the stock shall be transferred, and how a person may, by such transfer, become the successor of an original stockholder. A certificate of stock is only evidence. It is not the stock itself, and if improperly or illegally issued, whatever other effect it may have as against the company, it does not constitute the holder a member of the corporation or entitle him to vote at its meetings. The proceedings of the corporation would be vitiated by the admission of those who are not actual corporators to the privilege of voting; and the Directors, therefore, have been compelled to express the opinion, which they and their counsel entertain, that none but the original stockholders and their legal successors can vote at the contemplated meeting. They do not intend, however, to give or intimate any opinion as to the absolute or equitable rights of those who hold the spurious certificates, but simply for the guidance of the presiding officer in organizing the meeting, and for that purpose only, to determine that only the holders of the original capital stock and their successors, as they appear on the books of the company, and by the investigations already referred to, can be admitted to vote. The Directors also wish it to be distinctly understood, that they do not design to express or intimate any opinion as to the course proper to be pursued by the corporation relative to the fraudulent issue of stock.—That is a question, the determination of which belongs to the stockholders collectively.

The unfortunate defection of Mr. Schuyler induced the Board to institute an immediate and careful examination into the pecuniary affairs of the company. With the assistance of a skillful book-keeper, the accounts of Treasurer have been carefully examined and found to be correct—and

properly vouchered for. The Board account has also been examined, and it is found that for all the Bonds issued by the company the company have received the proper consideration in money, except for a small amount, which were hypothesized as security for a note given to raise funds to meet other Bonds, which note will be paid at maturity and the Bonds returned. With the exception of the fraudulent issue of stock already mentioned the Directors have not been able, upon careful examination, to discover anything wrong, or any attempt at fraud on the part of Mr. Schuyler in the affairs of the company, with the exception of two acceptances of \$10,000 each, purporting to have been drawn by R. & G. L. Schuyler on the company, and accepted by R. Schuyler as President. These were not transactions of the company, and the avails of the drafts were never realized by it—and as the transaction was out of the common course, and he had no authority to accept for the company, or to pledge its credit as security for his firm, the Directors have ordered their Treasurer not to pay them, and will resist their collection if it should be attempted. In view of the great interests involved, and of the probable consequences suspended upon the proceedings of the approaching meeting, the Directors beg leave to urge upon every one entitled to take part in its proceedings to be present, in order that the course which wisdom and justice shall require may be adopted.

By order of the Board of Directors,
WM. W. BOARDMAN, President, *pro tem.*
New York, Sept. 13, 1854.

OPINION OF COUNSEL.

Our opinion has been requested by the New York and New Haven Railroad company, as to their liability for the excessive and unauthorized issue of stock by Robert Schuyler, its late President and Transfer agent in New York.

The facts, as detailed to us, are substantially these:

The company was incorporated by the Legislature of the State of Connecticut, in May, 1844.—The charter contains this clause:

"§ 2 That the capital stock of said company shall be two million of dollars, with the privilege of increasing the same to three million of dollars, and to be divided into shares of one hundred dollars each; which shares shall be deemed personal property, and be transferred in such manner and at such places as the by-laws of said company shall direct."

Immediately after the organization of the company the following rules were adopted by the Board of Directors, under this section, regulating the transfer for its shares:

"The Principal Transfer Office shall be in the city of New Haven, but transfer agencies may be established in the cities of New York and Boston by resolutions of the Board of Directors, and all transfers of stock at any office shall be made under and in compliance with such rules and regulations, and by such instrument of assignment and transfer (which need not be under seal) as may from time to time be made, ordered and appointed by the Board of Directors. Certificates of stock shall be in such form, and issued under such rules and regulations as the Board of Directors may from time to time appoint and direct; but when a certificate of stock has been issued to any stockholder no second or duplicate certificate shall be issued, and no transfer of the stock shall thereafter be made or permitted without the surrender of said certificate, unless the same shall be lost or mislaid, and then only on special resolution of the Board of Directors and in compliance with the rules and regulations, conditions and stipulations, as to the renewal of certificates lost or mislaid, which may be adopted, imposed and required from time to time by the Board of Directors."

Schuyler, being the President of the company, was appointed the Transfer agent in New York; similar agencies being established in New Haven and Boston. Soon afterwards the capital was increased to three millions, as authorized by the section already quoted; the whole of which was

paid in, and scrip certificates issued for the shares to the respective owners. The capital has thus stood at three millions, beyond which it could not be increased without an act of the Legislature of Connecticut, for nearly ten years. In the autumn of 1853, and subsequently, Schuyler, acting as Transfer agent, having blank certificates of stock in his possession, for the purpose of transferring existing shares, when the old certificates should be surrendered, made an illegal issue of certificates, purporting to represent shares in the company, without the knowledge or authority of the Board of Directors, or any member of it; nor prior or valid certificate of shares being surrendered.—These illegal certificates were in the same form, and signed in the same manner as the valid certificates, with the name of "R. Schuyler Transfer Agent;" it having been the uniform usage of the company to affix no name to their stock certificates, other than that of their Transfer Agent at the place where the transfer was made. These certificates, to the amount of nearly \$2,000,000, were issued to R. & G. L. Schuyler (a firm in which he was a member,) and to other persons to whom they assigned them, and were used by Schuyler in his own private business, or in that of the firm; chiefly by borrowing money upon them and pledging them as collateral. None of the transactions in these shares were, ostensibly, or really for the benefit of the company; nor in passing them did Schuyler profess to act as the President or Transfer agent of the company, but simply for the firm, as the owner of the shares. Each certificate was for a large number of shares, and those issued to the firm were generally delivered with blank powers of attorney to transfer the stock, signed by Schuyler, in the name of his firm, without being actually transferred on the books.

Upon these facts, we are of opinion,

I. That these certificates of stock are illegal and void, and that they confer upon the holders no rights as stockholders. If the Board of Directors had originally used a like excessive number of shares, their act in so doing would have been illegal and void, and these can stand on no better ground. Indeed, the holders of them are in a much worse condition than the holders of such shares would have been.

II. That the company is not bound to, and that it cannot, lawfully, recognize or adopt them, as representing shares in the company, or as entitling the holders to any of the rights of shareholders. The Board of Directors could not, by any vote or resolution whatever, increase the stock beyond the three millions; their power on that subject was exhausted when they brought it up to that sum, and any effort to go beyond it, would not only have been invalid, but a violation of the charter warranting a forfeiture. It follows as a necessary consequence, that no subordinate agent of the company could do what the Board of Directors itself could not, and that the Board of Directors have no power to ratify or confirm any act which they could not originally perform. The power to admit the holders of these illegal shares as owners of stock, requires not simply their admission as stockholders, but the power to reject and exclude an equal number of shareholders from their rights as such. If the holders of illegal shares are entitled to come in at all, it is as stockholders in a company with a stock of three millions; they received the shares as such and not as shares in a capital of five millions, and their just rights in that event require the *ouster* of an equal number of lawful shares, so as to keep the capital within three million. It is quite obvious that the company have no power to do either of these things.

III. That the unauthorized and illegal act of the Transfer Agent in issuing these certificates to his own firm, and raising money upon them for his and their own use, does not create any debt or any legal obligation against the company. He was only the agent of the company to issue new certificates of stock for the three millions of its lawful capital, whenever certificates previously issued were surrendered. His agency did not ex-

tend, nor could it lawfully extend, to the creation of new shares. No such power had been conferred upon the company, and of course it could not be conferred upon him. He was not empowered to sell or transfer new shares, but simply to transfer the old ones, and all beyond this was a plain excess of power and an obvious illegality. A corporation is never responsible for the unauthorized and unlawful acts of its officers, transcending their corporate powers, though done *coloris officio*. To fix the liability, it must appear that the officers were authorized by the charter to do the act, or that it was done *bona fide* in pursuance of a general authority in relation to the subject of it, or that it has been adopted or ratified by the corporation; where it is a matter within the corporate authority.

In the case of a general agent, his acts will be binding on the principal, though he violates his particular instructions, provided the acts done in violation thereof come within the general scope of his authority. But it cannot be said that an act extending beyond the subject, and of course beyond the limits of the agent's authority, can be valid when it also transcends the power and authority of the principal himself, and more especially when in thus transcending the authority of the principal, it is at the same time illegal and against the policy of the law.

IV. It follows from these views, that the Board of Directors has no more authority to recognize the holders of these illegal certificates as creditors of the company for the amount advanced upon them, than it has to admit them to the rights of Stockholders.

The Directors of a Corporation have no power to appropriate its funds, or to give an obligation to pay an illegal claim which is made against it.—This was settled by the Court of Appeals in the case of *Hastead, vs. The Mayor of New York*, (2 Coast R., 430,) where the Corporation of this city gave its drafts to the Corporation Counsel to pay the costs of defending a suit against some of the Aldermen who had done an act in which the city was not interested, in violation of law, the defense having been assumed by a resolution of the Common Council. It was held that the drafts were void, even in the hands of a third party. If, therefore, the Directors should apply the funds of the company to pay these advances without the consent of the lawful stockholders, they would be liable for misappropriating the company's property, and if they should give the company's bonds for the amount they would be void, and no recovery could be had upon them.

V. That all the holders of the lawful stock should consent, the Board of Directors might recognize holders of the illegal shares as creditors for the sums advanced upon them, and might pay or give the bonds of the company for the amount; so if a like consent was given they might be recognized as stockholders; but in order to do this an act of the Legislature of Connecticut would be necessary, to increase the capital so as to include the whole number of legal and spurious shares, or to reduce the original stock so as to bring it, after adding the spurious shares, within the prescribed limit of three millions. In no other way can this be lawfully done.

WM. CURTIS NOYES,
GEORGE WOOD.

New York, August 9, 1854.

Sackets Harbor and Saratoga Railroad.

At the annual meeting of the stockholders of this road held at the office in Saratoga on the 12th inst., the following gentlemen were elected the directors for the ensuing year:

W. Coventry H. Waddell, Otis Clapp, James M. Marvin, Charles E. Clark, P. Somerville Stewart, Robert John R. Briggs, James Hollister, J. Beekman Finlay, Lyman R. Lyon.

The Chief Engineer reported on the progress of the work of construction, that 1600 men had been employed during the last month and the amount expended was about \$60,000 and that the force was being increased as men could be obtained.

Improvement of the Locomotive.

BY ZERAH COLBURN.

Proportions of the Cylinders, and their Relations to the Boiler.

There are several reasons why a locomotive cylinder should be proportionally small in diameter and long in bore, rather than the reverse. In the engines of William Norris, of Philadelphia, this principle of proportioning the cylinders has been carried out to a considerable extent, and with great success. As, however, its general adoption has not been effected, and as the principle has not been generally discussed, (even if recognized) by locomotive builders, its consideration comes within the scope of the present series of articles.

The advantages of the application of the principle stated may be thus enumerated.

Less relative waste of steam in the steam passages and cylinder ends; by reason of the double circumstance of the less frequent recurrence of the admissions of steam, and the smaller capacity of ports and diminished diameter of cylinder.

Less relative loss of time in changing the motion of the piston, as compared with the duration of the whole stroke.

By allowing of driving wheels of proportionately increased diameter, a given tractive power can be exerted with greater ease of motion; and, probably, by thus increasing the effective value of all the steam used, with greater speed and a consequent actual increase of the tractive power.

The cylinder being smaller in diameter, there is less pressure on the cylinder head; and consequently, with outside connected engines, less tendency to sinuous motion. This tendency arises from the reaction of steam from the pistons upon the cylinder heads; and when the pistons are moving in opposite directions, is exerted to throw the forward end of the engine alternately to each side of the track. This tendency, and its practical effects, have been previously considered.

With a smaller diameter of cylinder, the steam from a given boiler may be worked at a higher pressure; thus allowing the engine to be worked with greater expansive action, and corresponding economy of steam, for a given amount of power.

In practice, a long stroke, even with a correspondingly increased wheel, will start a train quicker, go faster up grade, and control the train in descending, more than the opposite proportion of cylinder.

There is an advantage also in the fastening of a long cylinder as compared with a short one; the connection with the frame and smoke-box being made upon a greater extent of surface.

The pistons are lighter and do not wear as much as when they are larger and heavier; and the weight of the cross heads and crank pins, included among the disturbing weights of the engine, is less, and requires less counterbalancing.

The objections to the long cylinder of small bore are comparatively trifling, and have not formed a bar to the use of such cylinders. It is rather the habit of making all engines with a stroke of 18 or 20 inches,—a habit confirmed by the former habitual preference for the inside connected engine, with which a long crank-throw would be inconvenient and unsafe.

It should be understood that the most direct method of securing the majority of the advantages of the long stroke is by proportionately enlarging

the driving wheel. Unless for a very level road, the proportion of *three times* the length of stroke for the diameter of wheel is very good for passenger engines. For a generally level road and for fast trains it would be better to depart from this proportion only by retaining a 24 inch stroke and enlarging the driver to 7 feet.

But with the inside connection a long stroke and large wheel, would place the boiler very high, making the engine unsteady; it would cut down the available height for the chimney, and the crank would be perpetually in danger of breakage. Hence, the inside connection, by keeping down the size of the driving wheel, has kept the stroke of 18 or 20 inches in use.

It is of course an obvious principle in the application of steam that the *expenditure of steam* should be considered as the amount used in a given time, and at a given density. Yet, there are frequent cases wherein the allowance of boiler room is based upon the amount of steam used in a given distance, as a mile. New England builders have been deterred from enlarging the cylinders and reducing the size of the drivers of their locomotives, to adapt them to the heavy grades of the eastern roads, partly from an anticipation that it would be difficult to supply sufficient boiler room without crowding the work, or making the engine enormously heavy. They have not recognized the fact that although such an engine might use double the quantity of steam used by their present engines, in going *one mile*, it might be nearly twice as long on the journey, and hence require a boiler of no greater evaporative power per hour. While the volume of steam used per mile in the powerful Winans' engines is *over twice* that used by the standard freight engine of the eastern roads, their boilers are not 30 per cent. larger in heating surface and steam room, and the whole weight of the engine is not above 20 per cent. greater. The New England engines run 20 miles an hour; the Baltimore engines 12. Thus, by sacrificing a little to speed, the Baltimore engines afford double the effective capacity of the New England engines, and with but little increase of the weight of engine or cost of running.

I have talked with eastern men engaged in the superintendence of motive power, who did not believe that the useful effect of their engines could be doubled, even by reduced speed, without doubling the size and weight of the engines. Of course they would not receive such an application of the doctrine of "heavy engines." But the Baltimore and Ohio road carry over 83 feet grades, daily trains of double the weight taken on similar grades by the Western Railroad of Massachusetts.

Yet their engines weigh, in all, but five tons each, more than the eastern engines, and have no greater weight upon any single wheel than have the latter class.

These facts illustrate a useful principle governing the relation between the cylinders and boiler.

It is common at the East to provide exactly the same sized boiler for a given cylinder, whether the engine is to have a $4\frac{1}{2}$ or $5\frac{1}{2}$ feet wheel, and whether it is to go 40 or 15 miles an hour. If anything, the slow engine receives the larger boiler. The builder says "the one engine will go 30 miles with a passenger train, upon one cord of wood, while the other will require a cord every 25

miles running with a freight train." True, but the freight engine is nearly *twice* as long in going 25 miles as the passenger engine is in going 40, and its *hourly evaporation* is consequently but one half, or perhaps *two thirds* as great. The passenger engine burns one cord an hour, while the freight engine with the same sized boiler, burns two-thirds of a cord.

It is an imperfect view of the proportions of boilers that has, along with the preference for the inside connections, kept large driving wheels out of use in New England. No road entering Boston has over $5\frac{1}{2}$ feet driving wheels on any engine. The Western road has but *two* engines having over $5\frac{1}{2}$ feet wheels, which, with one on the Boston and Maine, a few on the Hartford and Springfield and on the Norwich and Worcester, comprise *all* running within the State exceeding the limits above specified. Every one of these engines is outside connected, and three of them are "long stroke." Neglecting the proportions of boiler due to a high wheel and quick speed, it has been found difficult, with the preferences of the builders, to originate power enough to make the large wheel "work."

Although, with a given cylinder, a large wheel develops less volume of steam in going a mile, it is true that to get any benefit from the increased size of wheel, viz: greater speed with a given train, more steam must be used *per hour* and a larger boiler is necessary.

New York as a Manufacturing City.—Our Roads to the Coal Regions.

In any other country, the growth and rank of New York would be remarkable. A city whose simple element of growth is *commerce*, being neither a national nor provincial capital; enjoying neither the collection nor administration of the national revenues; having no natural monopoly of valuable products; and employing no important amount of *productive industry*, to become the greatest and richest city of a continent, is indeed demonstrating a great fact in the philosophy of cities.

New York is an *exchange*, and by no means, to any essential extent, a *workshop*. Drawing no distinctions between the dignity of commerce and that of labor, it is safe to say that the *manufactured materials*, which form a part of our commerce, could not be *produced* here without adding threefold to our population, and largely to our wealth.

It needs no efforts on our part to convince any one of the great influences which manufactures exert upon the communities which conduct them. If New York should acquire the important elements of manufactures, if she should place herself in advantageous connection with raw materials, fuel and food,—manufacturing industry would certainly collect here, and capital would immediately find new and productive employments.

Our present purpose is to consider the channels which are now likely to effect such connections; to indicate their length, physical features, and the progress of their construction; and to exhibit the extent, variety and importance of the manufacturing elements which they are likely to supply to our city.

Scranton, in Luzerne County, which may be considered as the center of the great Northern Coal Basin of Pennsylvania, is within 125 miles of tide water, and 140 miles from New York City.

These distances are by the routes over which the coal of the Lackawanna region will reach us.

From Scranton 61 miles south east, to the crossing of the Delaware River, forms the "Southern Division" of the Delaware, Lackawanna and Western Railroad, one of the most quiet and substantial enterprizes among us. This portion of their road is in active construction and is expected to be in operation, and in continuous connection with New York by June 1st, 1855. 25 miles of the rails will be laid before the close of the present season, and the remainder as soon as the frost shall permit in the spring. Scranton being in the center of the Lackawanna Valley, the coal trains will be made up on the summit 18 miles south-east, from whence not only over the remaining distance to the Delaware River, but to New York, the ascending grade will nowhere exceed 22 feet per mile. Returning with empty trains the ascending grade will be 75 feet per mile for 12 miles. Considered with reference to its working capacity, the road has a favorable profile, much more so than would have been inferred by any one from a general knowledge of the country traversed. The route adopted is the result of the most careful examinations, and the favorable grade is obtained by the construction of two tunnels, and of several high embankments and deep cuts.

There is probably no road in the country which will exceed this portion of the Lackawanna and Western Road in solidity and durability. The rail is of 75 and 80 lbs. weight per lineal yard. The sleepers are but 18 inches apart between centers, and the whole road bed is to be ballasted *two feet* in depth with broken stone. The gauge of the track is six feet. Already have the Company purchased or contracted for engines of greater weight and power than are in use on any other roads in the country.

The company are grading their road for a double track. The progress of the work has been rapid considering the nature of the obstacles encountered. The whole line passing through dense forests, and requiring about 2,400,000 cubic yards of earth and 609,000 cubic yards of rock excavation, required a large force for its construction. By the last report of E. McNeill, Esq., the Company's Chief Engineer, nearly 2,400 men and over 300 horses were then engaged on the work. Such a force, employed in the month of January, shows the company's determination to have their work completed at the earliest possible day.

From the crossing of the Delaware River, 18 miles to New Hampton summit, on the New Jersey Central Road, forms the Warren Railroad of New Jersey. This road is under contract to be finished at the same time as the Southern Division of the Lackawanna Road. It preserves the same gauge and ruling grade, and will be of the same substantial construction as the latter work. This portion of the line has two tunnels, and heavy earth and rock work.

From New Hampton Summit the distance to tide water at Elizabethtown is 48 miles, and to Elizabethtown on the New Jersey Railroad, 46 miles. This distance is by the New Jersey Central Railroad now in operation, the ruling grade of which as before stated is but 22 feet for loaded coal trains. An extra rail will be laid on this road to conform with the gauge of the Lackawanna Road.

The Delaware, Lackawanna and Western Railroad Company have a perpetual contract with the Warren and the New Jersey Central Railroad Companies, to carry their coal trains to tide water. The latter company have obligated themselves to lay a second track of six feet gauge, whenever the annual through tonnage of the Lackawanna road shall reach 400,000 tons per annum. The New Jersey Railroad and Transportation Company have also signified their willingness to lay an extra rail upon their road, to carry the wide gauge from Elizabethtown to Jersey City.

In a few months the whole line from the coal fields to tide water will be in active use. The entire line, with a double track, and a heavy equipment—fed by the vast coal measures in the interior, and delivering on the Lackawanna Company's ample grounds at tide water,—will transport 1,500,000 tons per annum.

Contracts for the supply of 500,000 tons per annum have already been made, the freight delivered at Elizabethport being \$2.56 per ton, or 2 cents per ton per mile.

The influences which such direct and abundant supply of fuel will exert upon our social, commercial and manufacturing interests, cannot be properly estimated. It will effect a most important domestic economy equal in our whole city, to nearly two million dollars per annum. It will save a much greater amount to our steam marine, and thereby to our commerce. It would be enough of a saving in an ocean steamer to reduce the price of an individual passage to Liverpool by as much as \$15.

But, in manufacturing employments, the value of this cheap supply of one of the great mineral products cannot be approximated. It could only be considered by estimating how great a quantity could be supplied. The influence of railroads, in equalizing the price of agricultural products in the interior, has made the sea-board cities able to support manufacturing populations upon such a scale of living, as combined with the facilities of procuring workmen, and the promptness of obtaining and filling orders, and with the saving of transportation, gives the cities an advantage over the interior for many branches of manufactures.

The State of New York abounds in natural productions which form the bases of important manufactures, and which with a supply of fuel, would seek conversion in the city and suburbs of New York. So also does New Jersey. The mineral wealth of these States is of great value. Iron, lead, zinc, limestone, kaolin and other ores and fire-wrought stones and earths, are in immediate or available neighborhood. The vast variety of applications of these materials, to machinery, domestic and marine architecture, railroad superstructure, hardware, stoves and furnaces, fences and paving; to paints, crockery, building materials, glass, chemicals, and for other purposes, show the extent to which they may yet enter into our municipal occupations.

When the great northern coal basin of Pennsylvania is opened to the Delaware River, we shall have the New Jersey Central and Morris and Essex Railroads and the Morris Canal, all ready for the delivery of coal opposite our city. These works intersect extensive portions of the mineral wealth of New Jersey, and will serve to bring in

large quantities of the materials appropriate to manufacturing operations.

It is also probable that the importance will be sometime discovered of building a six-feet gauge road from Paterson, through the Pequannock Valley, to Port Jervis. Such a route, having but one considerable summit, and co-inciding with the general direction from New York City to the Upper Valley of the Delaware, would save full 25 miles of the present length of the Erie Road between Paterson and Port Jervis. It would also develop additional, and very valuable and extensive deposits of minerals; among them the iron and zinc beds of Sussex County.

We have not considered any of the improvements under notice, except with reference to the supply of coal and minerals which they will afford. But apart from this consideration, the New Jersey Central will ultimately become an important trunk road for great North Western, Western and South Western lines of travel. With the Delaware, Lackawanna and Western, the Syracuse and Binghamton, and the Oswego and Syracuse roads, it will form the shortest connection between New York and the Canadas.

With that portion of the Lackawanna Road south of Factoryville, it will open a route through the Upper Valley of the Susquehanna, the shortest to Elmira and Buffalo. With the Sunbury and Erie Road it will make the shortest western connection with Cleveland and Chicago. With a road to Reading, Pa., it will make with the Lebanon Valley, Cumberland Valley, Baltimore and Ohio and Parkersburg roads, the shortest through route to the Ohio River and Cincinnati.

The vigorous prosecution and certain success of the Lackawanna Road will infuse life into all the others mentioned. We shall then witness the advent of a new railroad system, introducing a vast manufacturing element, besides extending our commercial operations and influencing the direction of a large part of our trade and travel with the entire West.

Annual Register of the Rensselaer Polytechnic Institute, 1854.

It is with unusual pleasure that we observe the progress and results of systematic instruction in technical science. The great efforts of modern times are of *mind upon matter*, and the results of these efforts pervade the entire social organization. The present is in advance of any former period in respect to the cultivation and exercise of the higher powers of the individual; and hence the vast modern appliances for the provision for individual and social wants. It is the practical science and the useful art of modern times which are solving the highest problems of social and political economy; evolving from every material element the greatest useful product with the least physical effort; thus equalizing social conditions, and conferring an inhabitable capacity upon inhabitable areas, far beyond the means of estimation of the theorists of a past age. The great facts of the cultivation and preservation of agricultural products, of the conversion of natural substances into useful objects, and of commercial and social communication, aided by discovery, and invention; by which the means of applying, directing and preserving popular efforts are immensely augmented; all have been more developed and understood within the last one hundred than

in the previous five thousand years. And we cannot estimate the deep influence which these recent conditions will yet have upon our social, political and religious institutions; upon our views and practice of government, our perception and exercise of social and individual rights, and our higher estimation of divine destiny. These are the great moral aspects of our progress and are all certain to bear the impress of the great practical and generalizing spirit of the times.

Where the aims of practical science are so elevated, the seminaries devoted to its cultivation demand recognition and examination.

Included among a few of the institutions of this character, noticed in our last issue, is that known as the "Rensselaer Polytechnic Institute" of Troy, N. Y., and whose establishment is thus set forth in the last Annual Register of the Institute, now before us.

The Rensselaer Polytechnic Institute was founded in 1825, by the late Hon. Stephen Van Rensselaer, as a school of theoretical and practical science. In 1826 it received from the Legislature of the State of New York, its act of incorporation, with those chartered authorities and privileges, usually conveyed to the higher institutions of the State.

In 1849, the Institute was wholly re-organized, and, in its new form, upon the basis of a general Polytechnic Institute. Among the changes then introduced, were, a material enlargement of its course of study, with a proportionate increase of the time allotted to it, and a correspondingly more elevated, and more rigidly held, standard of requirements for the admission of candidates to scholastic honors.

Since its foundation, the Institute has sent forth a considerable number of Graduates, who,—as professors and teachers of the mathematical and physical sciences, as practical chemists and geologists, and as engineers in the various departments of constructive and topographical art,—have contributed to the increase and diffusion of science, as well as to its applications to the business pursuits of life, with a success, to which it is believed, the Institute may refer with becoming confidence and just pride.

The Institute is under the control of a President and Vice President and 16 trustees. The General Director of the Academic department is B. Franklin Greene, Esq. The faculty of the Institute comprises distinct professorships upon the following subjects:

Philosophy of the Mind.

Mechanics, Machines and Construction.

Mathematics, Practical Astronomy and Geodesy.

Physical Geography, and Natural History applied to the Arts.

Practical Geology and Mining. English Composition and Criticism.

Theoretical, Practical and Technical Chemistry.

Graphics.

French and German Languages.

The course of Instruction, as exhibited in the Register, comprises all the mental and practical operations involved in the subjects taught by the Faculty. The course is based upon an extended system of Mathematics, comprising their means of mental discipline with their practical applications to general science and the arts.

The duration of the course is three years, divided in semi-annual sessions of twenty weeks each. The Institute bills are \$35 per session, payable in advance. The entire annual expenses,

necessary for the tuition and support of the student are from \$196 to \$268.

The Register for 1854 contains the names of 104 students, now connected with the Institute, viz:

Students of the third year.....	8
" " second "	19
" " first "	45
" " Preparatory Class	32
Total.....	104

We are proud of the standing and success of this Institution, and we are certain that its practical value will be still more appreciated and confirmed in the increase of its number of students and the practical results of its tuition.

Dilatation of Cast Iron by Successive Heatings.

We reprint the following article from the September number of the *Plough, Loom and Anvil*.—It is of importance to a large number of our readers, engaged in the construction of machinery, especially so, to those engaged in the making of Boilers, Furnaces and Retorts.

The memoirs of the *Societe Industrielle de Hanovre* contain on this subject a short note, which we here present to our readers:

"The remarkable phenomenon that cast-iron presents after being heated, of not returning, on cooling, to its original dimensions, but of presenting constantly an increase of this volume, and, by consecutive heatings and coolings, of acquiring a permanent volume, larger and larger, was first observed by Prinsep, in 1829. This chemist found that a retort of cast iron, of which the capacity had been measured with care by the weight of mercury it contained, gave the following results. Before even being heated, the retort contained 9.13 cubic feet: and after three successive heatings to the fusing point of silver, the contents was 10.16 cubic inches. The cubic dilatation produced then was 11.28 per cent., or a lineal dilatation of nearly 3-73 per 100. Since this there has been occasion to observe more frequently, and to investigate this property of cast-iron. It has been remarked, in effect, that all grate-bars which sustained a high heat became curved, little by little, that they elongated more and more, until finally they would push out the bars that sustained them.

M. P. W. Brix, in a work he has recently published, entitled *Researches on the Caloric Power of the Principal Combustibles found in Prussia*, has made known some experiments on this subject.—By the aid of numerous measurements, he has found that its permanent length augments after a heating, but that this augmentation was so much the less as the bar had been heated more often, and finally ceased. Thus, a grate-bar of 3.5 feet in length, after three days of a moderate fire, had taken a permanent elongation of 3-16 of an inch, (equal to 0.446 per cent.) at the end of 17 days, this elongation was 7-16 of an inch, (1.042 per cent.), and at the end of 30 days had reached 13-16 of an inch, (nearly 2 per cent.) and did not yet appear to have attained its maximum. Another bar of the same kind, after a long service, had preserved a permanent elongation of 1.25 inches, or nearl 3 per cent. The bars, while in the fire, experience another elongation, which is temporary, and contract as the heat is diminished: and it may hence be concluded with Mr. Brix, that it is proper to give to each new bar a play, longitudinally, of about 1.25 of an inch, or 4 per cent, to allow for this permanent and temporary elongation. In all cases, it is necessary to make it long enough, that when cold it may not fall between the supports, but in general it seems that not sufficient play is given to bars supported in this manner."

NOTE BY TRANSLATOR.—This is a matter very important to be thought of in all cases where cast-iron is submitted to the action of high heat, as furnaces, retorts, boilers, etc., and especially in cases where the cast-iron, in expanding permanently more than the other metal, will give the sur-

face a curved form, and tend to break the rivets, or other parts of the construction, and in certain circumstances might be productive of very inconvenient results. This is very plain to any practical man.

Where the cast-iron part of an engine is riveted to the boiler, as is often the case, the attachments should be made as far as possible, at places not submitted to great changes of temperature; but if this condition cannot be fulfilled, make the attachments in a manner to obviate, as far as possible, the evil referred to. This remark is made, not only with regard to the permanent elongation the cast-iron undergoes, but also with regard to the different degrees of expansion experienced by cast and wrought iron or other metals, by the same increase of temperature. The effects of this are soon noticed in the loosening of joints, warping of surfaces, etc. The intelligent builder with a knowledge of these facts and their extent, can, by the simple laws of common sense, arrange his work properly.

These effects may be noticed in almost every place where cast-iron is submitted to high heats, in retorts, furnaces, etc.: the shoving out of bricks the pushing aside of supports, and neighboring parts, etc.

Reforms in Railroad Management.

A writer in the Indianapolis *Journal* suggests the following subjects for the consideration of the convention of Western Railroad companies, to have been held at Columbus, Sept. 21st. As to the first two sections, it might not be always easy to find the requisite business and semi-professional talent, required for President and Superintendent, combined in the same person. And so of the Masters of Tracks and engine repairs, whose functions belong to two distinct trades; neither of which can be pursued with the tools, training and materials of the other. All the considerations however, merit attention; in or out of convention. The following are the subjects suggested for consideration.

1st. To unite the duties of President and Superintendent of trains, in one person, drawing but one salary.

2d. Let one person act as Superintendent of Tracks, with care of freight trains, and Chief Mechanist.

3d. Dismiss all runners, outside agents, and pay no such expenses as they now incur.

4th. Reduce all salaries of the cushion-chair order to a reasonable amount.

5th. Prohibit any officer from giving any free-passes, and let such things be done by the Boards in session only.

6th. Publish a monthly account of receipts and expenditures, including a full and honest statement of the names of all the officers and employees, and each person's salary or pay.

7th. Inquire whether Lawyers, and Doctors, and Politicians, are the best qualified persons for Presidents and Superintendents, or, whether the duties require any other qualifications, than mere legal, medical, or political skill?

8th. Increase the price of freight and passage, until it will remunerate the Stockholders.

9th. Obtain from the Legislature, proper laws to make the *watering of stock*, punishable by fine and imprisonment in the Penitentiary;—and make it a penal offence, for any officer or Director of a railroad company, to hold a vote or proxy, at any election of the company.

Black River and Utica Railroad.

The President of the Black River and Utica Railroad, has given notice to the stockholders that as there appears to be serious if not insurmountable objections to a union between that company and the Rome, Clayton and Ogdensburg Railroad, negotiations on the subject have been discontinued. It is now the intention of the Board to press forward in their original undertaking.

Rock Island Bridge.

A correspondent of the *St. Louis Intelligencer* thus speaks of the bridge now building across the Mississippi at Rock Island.

The connection between the Chicago and Rock Island Railroad, and the Mississippi and Missouri Railroad, is made by the "Mississippi Bridge Company."

The slough on the Illinois side of Rock Island is crossed by an embankment and bridge of three spans, each of 150 feet, resting upon their abutments and piers about 40 feet high.

The main channel of the Mississippi river will be crossed by a bridge of five spans each 250 feet; and two spans for the draw bridge, each 119 feet in the clear.

The draw is to rest upon a very large circular pier—surmounted by a turn table of 36 feet diameter, and will be worked by rack and pinions with such facility that the draw can be opened or closed by two men in one and a half minutes.

It is designed to keep the draw constantly open during the season of navigation, except when the trains are crossing the bridge.

The total length of the bridge across the main channel between abutments is 1,562 feet, (which is nearly equal to the width of the Mississippi river from the St. Louis to the Bloody Island.)

You will perceive there are two spans in the draw, each wide enough for two of the largest class upper Mississippi river boats to pass abreast with safety.

Crib guards will be made extending up and down the river some 400 feet, for the protection of the pier, so that it is impossible for a boat to strike a pier unless done intentionally. The depth of water in the channel at the present and lowest stage through the draw is ten feet.

The abutments and piers on the Illinois side are completed, as also the abutments on the main channel. A large force is now employed on the main piers, and on the 1st instant, we had the pleasure of witnessing the ceremonies of the *baptizing* the first stone of the first pier of the first railroad bridge across the first of rivers—"the Father of Waters!"

In this connection we would simply observe, that the party engaged in clearing the upper Rapids, have about completed the worst place in the chain, making the channel four hundred feet wide and four feet deep all the way; when previously it was only eighteen to twenty-four inches deep in many parts.

Hartford and New Haven Railroad.

The annual meeting of the Hartford and New Haven Railroad Company was held at Hartford, on Wednesday, when the following statement of the receipts and expenditures for the year was read:

From Passengers.....	\$476,174 84
From Freight.....	243,648 02
From Mails, expresses, rents, &c.....	37,834 21
Total.....	\$757,651 61
Repairing roads and bridges.....	\$81,756 20
Wood, coal and oil.....	75,573 66
Materials and labor on engines and cars.....	44,892 45
General expenses, including taxes, insurances, &c.....	54,687 08
Salaries, labor and transportation expenses.....	98,675 67
Lost and damaged goods, gratuities, &c.....	4,539 12
Station repairs.....	9,589 15
Engines and cars paid for.....	16,337 52
Interest on bonds, &c.....	52,444 66
	\$451,447 52
Net receipts.....	\$306,447 09

The President, Mr. Charles F. Pond, having declined to receive compensation for his services the past year, a committee was appointed to procure a

service of plate and present to Mr. Pond, in behalf of the company, in acknowledgement of his faithful and efficient services. The old Board of Directors was re-elected. At a subsequent meeting of it Charles F. Pond was re-elected President, and Horatio Fitch, Secretary and Treasurer.

American Railroad Journal.

Saturday, September 30, 1854.

New York and New Haven Railroad

REPORT OF THE DIRECTORS—MEETING OF THE STOCK-HOLDERS.

The brief article upon the subject of this Road in our last issue, was written before the announcement of the immediate publication of the report of the directors, upon the Schuyler fraud, and before the meeting of the stockholders, held at the Metropolitan Hotel, on the 21st inst.

The meeting at the Metropolitan Hotel did not come to much. The number of shares of stock owned by the directors, as verbally reported to the meeting, is as follows:

	Genuine.	Spurious.
Wm. W. Boardman, New Haven	..60	—
Jonathan Sturges, New York	..41	50
Morris Ketchum	..21	—
Ketchum, Rogers & Co.	—	865
A. Blackstone, New York	..19	—
Wm. Worthem, New York	..10	—
J. E. Thayer & Co., Boston	..5	—
Wm. B. Burrill, Bridgeport	..45	—
John C. Sanford	—	20
Total	201	435

The action and sentiment of the meeting will be seen by the following resolutions which were adopted:

Whereas, It has been represented to this meeting, upon the authority of the President of the New York and New Haven Railroad Company, that the aggregate amount of spurious Stock held by the Board of Directors is larger than the genuine Stock held by them, therefore

Resolved, That it is the sense of this meeting that said Directors should resign.

Resolved, That this meeting appoint a committee of five to prepare and publish, in such form as they may deem most expedient, such an *expose* of the proceedings of said Company, from its incorporation to the present time as shall place within the knowledge of the stockholders such matters of interest to them which may have been transacted by the present or any former Board of Directors.

Resolved, That this meeting, as a matter of right, call upon the Directors to furnish to said Committee, upon request, any and all books, vouchers, contracts, and other papers as may be within the scope and authority of said company.

Resolved, That said committee be requested to recommend such course as may be necessary in order to protect the interests of those holding the genuine stock.

Resolved, That the action of said Committee be reported to an adjourned meeting of the stockholders, to be held at Brewster's Hall, in the city of New Haven, at such time as they shall deem proper, giving due public notice thereof.

Resolved, That this meeting hereby recommend to the Directors of the New York and New Haven Railroad Company, to offer a reward of \$5,000 for the delivery to the proper authorities of ROBERT SCHUYLER, late President of said company.

The meeting was not largely attended, in consequence, probably, of an early general meeting, already notified by the directors.

Vermont Central railroad.
At a meeting of the Board of Directors, George M. Dexter, Esq., of Boston was elected President.

Railway Share List,

Compiled from the latest returns—corrected every Wednesday—on a par valuation of \$100.

NAME OF COMPANY.	Miles open.	Capital paid in.	Debt.	Tot. cost of road and equipmt.	Gross Earnings for last official year.	Net Earnings for last official yr.	Dividends for do.	Price of Shares.	
Atlantic and St. Lawrence... Maine.	150	1,538,100	2,978,700	5,973,700	254,748	113,520	none	86	
Androscoggin and Kennebec.. "	55	824,863	1,048,540	2,036,140	177,003	80,053	none	32	
Kennebec and Portland.. "	72	1,073,673	1,439,694	2,520,981	168,114	100,552	none	42	
Port, Saco and Portsmouth.. "	1	1,355,500	123,884	1,459,384	208,669	....	6	94	
York and Cumberland,.... "	20	285,747	341,100	713,805	23,946	11,256	none	24	
Boston, Concord and Montreal. N. H.	93	1,649,278	622,200	2,540,217	150,538	79,659	none	17	
Concord	35	1,485,000	none.	1,485,000	305,806	141,836	8	105	
Cheshire	54	2,078,625	720,900	3,002,094	287,768	55,266	5	35	
Northern	82	3,016,634	.....	.....	328,782	163,075	5	42	
Manchester and Lawrence.. "	24	717,543	.....	.....	.....	.....	6	70	
Nashua and Lowell.. "	15	600,000	none.	651,214	182,545	51,513	8	104	
Portsmouth and Concord.. "	47	.....	.....	1,400,000	.....	.....	none	....
Sullivan	26	.....	.....	673,500	.....	.....	none	10	
Connecticut and Passumpsic.. Vt.	61	1,097,600	550,000	1,745,516	.....	.....	none	20	
Rutland	120	2,486,000	2,429,100	5,577,487	495,397	266,589	none	9	
Vermont Central	117	8,500,000	3,500,000	12,000,000	.....	.....	4	4	
Vermont and Canada	47	1,500,000	.....	1,500,000	Leased to the Vt. Cent.	78	.....	....
Western Vermont	51	392,000	700,000	.....	Recently opened.	none	....	....
Vermont Valley	24	.....	.....	.....	.....	none	....	....
Boston and Lowell	Mass.	28	1,830,000	206,190	2,044,536	434,599	114,098	6	81
Boston and Maine	"	83	4,076,974	150,000	4,111,345	803,024	418,858	8	100
Boston and Providence	"	55	3,160,000	402,826	3,579,041	509,326	226,639	6	77
Boston and Worcester	"	69	4,500,000	590,641	4,850,754	887,219	413,289	7	95
Cape Cod branch	"	29	421,950	180,000	638,906	68,942	26,412	5	40
Connecticut River	"	52	1,591,110	286,363	1,802,244	258,220	102,098	4	52
Eastern	"	58	2,850,000	1,192,975	3,120,391	620,810	310,875	6	61
Fall River	"	42	1,050,000	6,208	1,050,000	294,183	126,589	8	98
Fitchburg	"	67	3,540,000	191,500	3,716,870	626,659	214,633	6	87
New Bedford and Taunton	"	20	500,000	none.	529,964	188,442	46,839	7	117
Boston and New York Central	"	74	1,159,228	953,370	2,221,068	90,315	35,214	none	50
Old Colony	"	45	1,964,070	295,038	2,293,534	374,897	122,866	none	99
Taunton Branch	"	11	250,000	none.	307,136	159,738	21,490	8	....
Vermont and Massachusetts	"	77	2,233,939	1,139,615	3,207,818	244,823	18,144	none	11
Worcester and Nashua	"	46	1,140,000	194,445	1,342,593	182,398	81,807	5	52
Western	"	155	5,150,000	5,319,520	9,953,258	1,525,224	746,736	7	93
Stonington	R. I.	50	.....	467,700	.....	240,572	110,892	....	65
Providence and Worcester	"	40	1,457,500	300,000	1,791,999	291,417	120,892	6	80
Canal	Conn.	45	922,500	500,000	1,400,000	.....	4	65	
Hartford and New Haven	"	72	2,350,000	800,000	3,150,000	639,529	294,269	10	119
Housatonic	"	110	.....	.....	2,500,000	329,041	168,902	none	....
Hartford, Prov. and Fishkill	"	50	.....	.....	In progress	69,629	.....	none	....
New London, Wil. and Palmer	"	66	558,861	800,000	1,511,111	114,410	.....	....	....
New York and New Haven	"	61	3,000,000	1,641,000	4,978,487	806,713	428,173	7	....
Naugatuck	"	62	926,000	440,000	.....	.....	8	....	....
New London and New Haven	"	55	750,500	650,000	1,380,610	Recently opened.	none	....	40
Norwich and Worcester	"	54	2,121,110	701,600	2,596,488	267,561	116,965	4	45
Buffalo and New York City	N. Y.	91	900,000	1,550,000	2,550,500	Recently opened.	none	....	....
Buffalo, Corning and N. York	"	132	.....	.....	In progress	.....	none	....	....
Buffalo and State Line	"	69	879,636	872,000	1,921,270	Recently opened.	....	130	....
Canandaigua and Niagara F.	"	50	.....	.....	In progress	.....	....	....	....
Canandaigua and Elmira	"	47	425,509	582,400	987,627	76,760	39,360	none	....
Cayuga and Susquehanna	"	35	687,000	400,000	1,070,786	74,241	23,496	none	....
Erie, (New York and Erie)	"	464	10,000,000	24,003,865	33,070,863	4,318,962	1,800,181	7	44
Hudson River	"	144	3,740,515	7,046,395	10,527,654	1,063,659	338,783	none	44
Harlem	"	130	4,725,250	977,463	6,102,935	681,445	324,494	4	33
Long Island	"	96	1,875,148	516,246	2,446,391	205,068	44,070	none	22
New York Central	"	504	28,085,600	10,773,823	33,859,423	.....	....	90	....
Ogdensburg (Northern)	"	118	1,579,969	2,969,760	5,133,834	480,137	195,847	11	....
Oswego and Syracuse	"	35	350,000	206,000	633,598	92,353	46,072	....	....
Plattsburg and Montreal	"	23	174,042	131,000	347,775	Recently opened.	none	....	....
Rensselaer and Saratoga	"	25	610,000	26,000	774,450	213,078	96,737	....	....
Rutland and Washington	"	69	850,000	400,000	1,250,000	Recently opened.	....	....	....
Saratoga and Washington	"	41	899,800	940,000	1,832,945	173,545	135,017	none	30
Troy and Rutland	"	32	237,890	100,000	329,577	Recently opened.	....	33	....
Troy and Boston	"	39	430,936	700,000	1,043,357	Recently opened.	none	....	....
Watertown and Rome	"	96	1,011,940	650,000	1,698,711	225,152	116,706	8	92
Camden and Amboy	N. J.	65	1,500,000	.....	4,327,498	1,388,385	478,413	10	120
Morris and Essex	"	45	1,022,420	128,000	1,220,326	149,941	79,252	7	....
New Jersey	"	31	2,197,840	476,000	3,245,720	603,942	316,259	10	131
New Jersey Central	"	68	1,679,935	1,500,000	3,195,222	365,833	179,210	7	95
Cumberland Valley	Penn.	56	1,184,500	18,000	1,265,143	118,617	76,890	5	....
Erie and North East	"	20	600,000	.....	750,000	Recently opened.	....	125	....
Harrisburgh and Lancaster	"	36	830,100	718,227	1,702,523	265,827	106,320	8	55
Philadelphia and Reading	"	95	6,656,832	10,427,800	17,141,987	2,480,626	1,251,987	7	78
Philad., Wilmington and Balt.	"	98	5,000,000	2,899,166	8,067,285	868,088	541,769	5	69

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Railway Share List,

Compiled from the latest returns—corrected every Wednesday—on a par valuation of \$100.

NAME OF COMPANY.	Miles open.	Capital paid in.	Funded debt.	Tot. cost of road and equip't.	Gross earnings for last official year.	Net earnings for last official yr.	Dividend for do.	Price of shares.
Pennsylvania Central.....	Penn. 250	9,768,155	5,000,000	13,600,000	1,943,827	617,625	...	85
Philadelphia and Trenton.....	" 30	...	...	...	...	...	...	...
Pennsylvania Coal Co.....	" 47	...	...	...	...	...	...	...
Baltimore and Ohio.....	Md. 381	13,118,902	5,677,103	22,254,338	2,033,420	798,193	7	49
Washington branch.....	" 38	1,650,000	...	1,650,000	348,622	216,237	8	...
Baltimore and Susquehanna.....	" 57	...	...	...	418,673	152,536	...	...
Alexandria and Orange.....	Va. 65	...	...	...	...	...	...	...
Manassas Gap.....	" 27	...	...	In prog.	...	...	...	...
Petersburgh.....	" 64	769,000	173,867	In prog.	...	...	...	...
Richmond and Danville.....	" 73	1,372,324	200,000	In prog.	227,593	72,370	7	77
Richmond and Petersburgh.....	" 22	685,000	...	1,100,000	122,861	74,113	none	70
Rich., Fred. and Potomac.....	" 76	1,000,000	503,006	1,531,238	254,376	113,256	7	100
South Side.....	" 62	1,357,778	640,000	2,106,467	62,762	...	...	...
Virginia Central.....	" 107	1,673,684	469,150	2,392,215	210,052	99,077	10	50
Virginia and Tennessee.....	" 73	2,650,091	707,958	3,545,256	109,268	42,736	none	98
Winchester and Potomac.....	" 32	180,000	120,000	416,532	89,776	...	...	...
Wilmington and Raleigh.....	N. C. 161	1,338,878	1,134,698	2,965,574	510,038	158,898	6	...
Charlotte and South Carolina.....	S. C. 110	...	...	...	...	...	...	...
Greenville and Columbia.....	" 140	1,004,231	500,000	...	...	...	...	...
Wilmington and Manchester.....	" 242	8,858,840	3,000,000	In prog.	7,002,396	1,000,717	609,711	7
Georgia Central.....	Ga. 191	3,500,000	418,187	In prog.	3,465,879	986,074	535,608	8
Georgia.....	" 211	4,000,000	1,214	...	...	984,424	456,468	7½
Macon and Western.....	" 101	1,013,088	163,000	1,277,334	278,739	149,960	9	101
Muscogee.....	" 71	...	...	In prog.	59,590	21,731	...	...
South Western.....	" 60	586,887	150,000	748,525	129,395	71,535	8	...
Alabama and Tennessee River.....	Ala. 55	...	...	In prog.	...	...	...	...
Memphis and Charleston.....	" 93	776,259	400,000	In prog.	...	...	...	...
Mobile and Ohio.....	" 33	879,868	...	In prog.	...	...	...	...
Montgomery and West Point.....	" 88	688,611	...	1,330,960	173,542	76,079	8	...
Southern.....	Miss. 60	...	...	...	...	...	...	...
East Tennessee and Georgia.....	Tenn. 80	835,000	541,000	In prog.	...	...	...	...
Nashville and Chattanooga.....	" 125	2,093,814	850,000	In prog.	...	...	...	...
Covington and Lexington.....	Ky. 73	1,430,150	900,000	In prog.	...	...	...	...
Frankfort and Lexington.....	" 29	357,218	...	584,902	87,421	44,250	68	80
Louisville and Frankfort.....	" 65	...	...	...	...	...	...	...
Maysville and Lexington.....	...	...	...	...	...	...	...	...
Cleveland and Pittsburgh.....	Ohio. 100	1,979,100	1,142,200	In prog.	...	...	...	...
Cleveland and Toledo.....	" 147	2,000,000	1,600,000	3,279,908	432,682	267,278	10	50
Cleveland and Erie.....	" 95	...	...	...	...	...	70	...
Columbus and Columbus.....	" 135	3,027,000	408,200	3,655,000	777,793	483,454	12	104
Columbus and Lake Erie.....	" 46	...	...	2,000,000	...	...	...	...
Cincinnati, Ham. and Dayton.....	" 61	...	...	...	...	...	...	...
Cincinnati and Marietta.....	" 60	2,100,000	500,000	2,659,653	321,793	200,967	...	...
Dayton and Western.....	" 40	810,000	550,000	In prog.	...	...	62	...
Dayton and Michigan.....	" 20	...	...	925,000	Recently opened.	...	75	...
Eaton and Hamilton.....	" 36	...	...	In prog.	...	...	56	...
Greenville and Miami.....	" 31	...	...	...	...	...	...	...
Hillsboro.....	" 37	...	...	In prog.	...	...	...	...
Little Miami.....	" 84	2,668,402	482,000	3,169,783	667,559	352,133	10	...
Mansfield and Sandusky.....	" 90	900,000	1,000,000	1,855,000	...	...	...	...
Mad River and Lake Erie.....	" 167	2,387,200	1,767,000	4,110,148	540,518	113,401	...	77
Ohio Central.....	" 57	...	...	In prog.	...	...	...	...
Ohio and Mississippi.....	...	...	...	...	...	...	...	...
Ohio and Pennsylvania.....	" 187	1,750,700	2,450,000	...	...	...	...	79
Ohio and Indiana.....	...	...	...	Recently opened.	...	...	...	...
Scioto and Hocking Valley.....	" 44	750,000	300,000	In prog.	...	...	...	...
Columbus and Xenia.....	" 54	1,291,700	26,000	1,310,062	314,434	168,612	10	...
Evansville and Illinois.....	Ind. 31	...	...	In prog.	237,506	...	...	...
Indiana Central.....	" 131	...	...	...	...	...	...	...
Indiana Northern.....	" 83	...	...	...	...	...	...	...
Indianapolis and Bellefontaine.....	" 90	1,128,486	1,289,000	1,869,932	Recently opened.	...	90	...
Indianapolis and Cincinnati.....	" 62	...	...	Recently opened.	...	...	...	...
Lafayette and Indianapolis.....	" 159	2,647,700	1,241,300	2,409,000	516,414	268,075	10	...
Madison, Indianapolis & Peru.....	" 72	682,887	663,100	1,354,019	105,944	71,446	4	...
Terre Haute and Indianapolis.....	" 135	2,400,000	4,000,000	4,600,000	...	...	...	...
Rock Island and Chicago.....	Ill. 92	...	500,000	In prog.	478,548	286,152	...	...
Chicago and Mississippi.....	" 282	8,741,564	7,276,616	1,200,922	586,929	17	90	...
Illinois Central.....	" 88	3,977,508	8,618,506	1,145,598	582,816	8	89	...
Galena and Chicago.....	Michigan Southern and Ind. N. Mich. 815	non	In progress	Recently opened.	...	...	...	...
Michigan Central.....	" 282	...	...	...	...	...	...	...
Pacific.....	Mo. 88	...	...	...	...	...	...	...

Pacific Railroad of Missouri.

At a meeting of the Board of Directors of the Pacific Railroad, held September 18, the following gentlemen were unanimously elected to fill the vacancy existing in the board by the resignations of Messrs. Allen, Brant, and Walsh, viz.: Robt. K. Woods, John How and Chas. K. Dickson.

To the Railway Public.

I have in hand, and upon which considerable progress has already been made, a work upon the Railroads and Canals of the United States; and for the purpose of securing general co-operation, and of obtaining the requisite information, the subjoined circular, (to which was added a full statement of the Boston and Worcester Road, to serve as a model of the kind of statement desired from other companies,) has been sent to all the railroad companies in the United States, and to such parties as were supposed to possess valuable information in reference to them. I now publish the circular in the Journal, for the purpose of calling renewed attention to it, and again take occasion to solicit the information desired. I also publish in connection with it, a statement in reference to the Fitchburg Railroad; and shall hereafter devote a large part of the Journal to the weekly publication of similar statements, in reference to other roads, till the work is ready for publication, which is expected to be in the early part of the ensuing year. As the financial year with many of our companies terminates with the Calendar year, I am compelled to wait for such report before putting the proposed work to press.

It will confer a great favor upon me, if Railroad Companies will furnish me with prompt replies to the inquiries addressed to them. By so doing, I can first publish in the Journal the statements furnished by the more important companies, thus giving ample opportunity for the correction of any mistakes that may occur. In all cases I wish to have the statements prepared, as far as possible by railroad companies, which I wish to make responsible for their correctness, that they may serve as standards to which subsequent reports may be referred. Where companies are unwilling to make out the statements desired, they will oblige me by sending a full set of their reports, with a copy of their charters.

I have also addressed appropriate circulars to the Secretary of State, of each State, for the purpose of obtaining the legislation of each in reference to public improvements.

I shall feel under great obligation to all persons familiar with the history or working of our railroads, for any facts in reference to them, tending to illustrate the object I have in view.

CIRCULAR.
NEW YORK, August 21st, 1854.

I have in preparation a work upon the Railroads and Canals of the United States, and I take the liberty of applying to you for information in reference to the road which you are connected.

I beg leave to refer you to a succeeding page, upon which you will find a brief history of the Boston and Worcester railroad Company, with a statement showing its financial condition at the present time. I desire a statement in reference to your road, similar to the above, varied of course to meet what is peculiar in its charter, history, or condition.

I am forced to make a direct appeal to Railroad Companies, as the only sources, in many cases, of

information. In few of the States only are Railroad Companies required by law to make public reports of the condition of their affairs, and the results of the operation of their roads. It would be impossible therefore to secure that degree of accuracy desirable in a work like the one proposed, without having the several statements corrected and verified by persons whose positions give them access to all the sources of information, and whose identity with their respective roads have made them familiar with their history. Even where I have the reports published by Railroad Companies I prefer such companies should furnish, in the manner requested, the data to form a basis for a statement of their affairs, especially as it may be desirable to state facts which do not appear in any published report.

The annexed statement of the Boston and Worcester Railroad is designed to serve as a sort of model of what I wish to obtain from every company in the United States. The following recapitulation will show what that statement contains, and what I wish to procure in each case.

1st. The title of your company, its directors and officers, the location of its principal office, of its transfer offices, and the date of its annual meeting, or the close of its financial year.

2d. Its chartered privileges, whether contained in the original act of incorporation, or in amendments thereto.

3d. The first estimated cost of the road, with the estimated amount of its income.

4th. The date of commencement of work of construction; also of the completion of the several divisions, or sections and of the whole road.

5th. A statement showing the physical features of the route of your road, with its alignment and grades. Also a statement showing the length of line, maximum and total gradients in either direction, with the length and inclination of the several planes, without going into too great detail.— Also a statement showing the minimum and total curvature; also the gauge of the road.

6th. The pattern and weight of rail used.

7th. The total cost of road when opened for business, and for each succeeding year; also total amount of stock; the yearly mileage; cost per mile; gross receipts; current expenses; net receipts; dividends; receipts from passengers; do, from freight; do, miscellaneous; yearly earnings per mile, and annual per centage of gross and net receipts on the cost of the road.

8th. The total amount of capital authorized by charter, with the amount of paid up capital for each year. Also the amount taken by corporate, or municipal bodies, and how paid; also the amount and nature of the indebtedness of the company, and how secured; the amount of funded debt, when contracted and when and where payable, and whether convertible into the stock of the company; the rate of interest payable on funded and floating debt, and how and where payable; also the contingent debt of the Company, if any.

9th. The rate and amount of dividend paid since the road went into operation; whether the same was paid in cash or stock; also the amount of earnings expended in construction; also whether any portion of the stock, and what amount, has preference in dividends over other, or common stock.

10th. The length of double track; also of sid-

ings; also the plans or measures in progress for the improvement of the road, and whether the same be in good or bad condition, and whether well or poorly equipped: the amount of equipment, or rolling stock on the road, and its value.

11th. What policy or measures have been adopted, if any, to provide a sinking fund for the payment of the indebtedness as it may fall due; also the present amount of sinking fund; also the amount reserved for repairs or equipment, whether of an ordinary or extraordinary character.

12th. The items that make up the construction account classified under appropriate heads.

13th. A synopsis of the last annual report, with a statement showing the character of the business or traffic for the last year; the amount received from passengers; do, from freight; also the number, and receipts from through passenger and freight business, as distinguished from local or way business; also the expense account of each; also the different items that make up the expense account.

14th. The total number of miles run by the trains the past year, classified as freight, passenger and repair trains; also total number of passengers and tons of freight, distinguishing the through, from way or local passengers and freight, carried one mile.

15th. A copy of the balance sheet of your ledger at the date of your last report.

In addition to the above, please add whatever in the case of your own company may be important or desirable to be known.

I shall feel obliged by the communication of any facts illustrating the history, value, position and progress of Railroads other than these with which you may be connected.

When a Railroad is in progress, please describe the route, the means at the command of the company, the estimated cost of the road, the character of the work, the probable time required for its completion, contracts for construction, with such other information as may be necessary to a distinct idea of the object and condition of the company.

In all cases I desire if possible to obtain full sets of reports issued by the several companies: especially copies of their charters.

I am aware that furnishing the information requested will impose a serious burden upon you.— I would not trouble you were it not absolutely necessary to do so to accomplish the object I have in view, which is to present a full, concise, and correct history of the public works of the United States. I wish each company to furnish the data as materials for its history. I hope it may be some compensation for your trouble that it will be the means of presenting before the public a correct and satisfactory statement of the affairs of the company with which you are connected.

The progress of railroads in the United States, and with that of the country, in intelligence, in wealth, and in social comfort, is without parallel. A history of these works is a most interesting chapter in the history of the country, and better than any thing illustrates the force and practical character of our people.

Respectfully soliciting your aid and co-operation, I am very truly,

HENRY V. POOR.

Editor of the American Railroad Journal.

Fitchburg Railroad.

President, Thomas Whittemore; Treasurer, John P. Welch; Superintendent, L. Bigelow.

Annual meeting, last Tuesday in January.

Principal office, and Transfer office, corner of Haverhill and Causeway streets, Boston.

Length of main line (double track) 50 93-100 miles.

" " Branches (single track) 16 85-100 "

Total

67 78-100

CHARTER.

The Fitchburg Railroad Company was incorporated by the Legislature of Massachusetts, March 3d, 1842, and authorized to construct a railroad from a point on the Charlestown Branch Railroad in West Cambridge, through Watertown, Waltham, Weston, Lincoln, Concord, Acton, Boxboro, Littleton, Harvard, Groton, Shirley Lunenburg, Leominster to Fitchburg. The capital stock was fixed at fifteen thousand shares, or one million five hundred thousand dollars. The company were empowered by purchase or lease, to obtain the use of the Charlestown Branch Railroad, (see Charlestown Branch Railroad), for the transportation of passengers and property thereon. The Legislature reserved the right to authorize any other company to enter with any other railroad on the Fitchburg road, and to use the same, or any part thereof;

provided, however, that no other corporation shall so enter with any motive power, unless the Fitchburg company shall refuse to draw over their road, or any part of it, the cars of any other railroad which may be authorized to enter, as above stated.

The Legislature also reserved the right to reduce, from time to time, after the expiration of five years from the opening of the road, the rate of tolls and profits, but not without the consent of the corporation below a rate that would produce at least ten per cent. per annum. Subsequent Acts, passed 1845—1853, authorized the Fitchburg company to subscribe \$400,000 to the stock of the Vermont and Massachusetts Railroad; (which subscription, however, was never made,) to succeed to all the powers &c., of the Charlestown Branch Railroad Company; to accept the charter of the Watertown Branch Railroad; to locate and construct the Lancaster and Sterling Branch; to purchase the Harvard Branch; to accept and hold the franchise and property of the Waltham and Newton Branch; to accept the charter and build the road of the Waltham and Watertown Branch Railroad Company; to extend the same into Boston; and for these and other purposes, to increase the amount of their capital stock, to the sum of four millions of dollars.

CONSTRUCTION.

The building of the road was commenced May 20th, 1843. It was opened to Waltham, 10 miles, Dec. 20th, 1843; to Concord, 20 miles, June 17th, 1844; to Acton, 27 miles, Oct. 1st, 1844; to Shirley Village, 39 1/4 miles, from Boston, Dec. 30th, 1844; to Fitchburg, March 5th, 1845; the length of the road from Block Island in West Cambridge to Fitchburg being 44 23-100 miles.

According to contract, and before the purchase thereof in 1846, the Fitchburg company used the track or the road-bed of the Charlestown Branch Railroad. Until 1848 the eastern terminus, stations &c., were near the Warren Bridge in Charlestown. In 1848 the road was extended into Boston; the freight depots, engine houses &c., remain-

ing at Charlestown. The laying of a double track was commenced in the year 1845, and completed the entire length of the main road in November, 1849.

PHYSICAL FEATURES OF THE ROAD.

The Fitchburg Railroad runs in a western and North-western direction towards the northern boundary of Massachusetts through some of the most flourishing towns in the State and in a direction to obtain by its connection with other roads, travel and business from Western New Hampshire, Southern Vermont, and the Valley of the Connecticut. It is thoroughly built, with T rail and amply equipped. Its principal characteristics are as follows:

Length of double main track.... 50 93-100 miles.
Length of branches owned by the company—single track..... 16 85-100 "
Aggregate length of sidings and other tracks..... 17 4-10 "
Weight of rail, per yard, main road 56 to 60 lbs.
" " " " in branch roads (Lancaster and Sterling Branch excepted which is 49lbs. 56 lbs.

Maximum grade in main road upon four different planes 40 ft.—5 12-100 miles in the aggregate.

Total rise in the road going West, 739 $\frac{1}{2}$. Do. going East 813 $\frac{1}{4}$ feet.

Length of shortest radius 818 feet. Length of shortest curve 500 feet.

Total degrees of curvature in main road..... 1 694 $\frac{1}{2}$ ^o
Total length of straight line in main road..... 34 67-100 miles
Wooden truss bridges..... 490 feet.
Other wooden bridges..... 7 376 "

Way stations on main road and Branches..... 27
Flag stations on main road and Branches..... 20

The branches owned or leased and operated by the Fitchburg Company are:

	Miles.	Cost.
Watertown branch (including Waltham and Watertown and ice tracks).....	7 85-100	\$208,243 66
Lancaster and Sterling, (to Feltonville).....	9 —	142,839 30
Lexington and West Cambridge—leased.....	6 $\frac{1}{2}$ —	
Peterboro and Shirley, (to Mason Village)—leased..	23	

CHARACTER OF BUSINESS &c.

The Fitchburg Road is a trunk road receiving passengers and freight from several other roads that enter it at Fitchburg; it also enjoys a large way business, and has in Charleston, direct access to tide water and the Harbor, where ships of the largest size can float at low water. Of the kinds of freight transported, are large quantities of ice, from Fresh, Spy and other ponds, bricks, woods en ware, wood, cattle, and all kinds of western produce. The connections of this Road are very broad, reaching north to the Canadas, and West to the great lakes. It draws freight also from the whole line of northern Massachusetts, from the entire length of Vermont, and from all the South western portion of New Hampshire.

THE FINANCIAL CONDITION.

According to report for the year ending Nov. 30, 1853, the capital and debt were as follows: Capital Stock paid in \$3,540,000—with the right to issue 4,600 additional shares; making the authorized capital \$4,000,000. Funded debt \$100,000. Floating debt \$91,500. Total dividend (6 per

cent.) \$212,400 00. Total surplus \$159,836 71, up to Aug. 1854.

EQUIPMENT, 1853.

Locomotives.. 27.
Passenger cars 30.
Freight cars... 176 eight-wheel, 218 four wheel=394
Baggage cars. 3 " " 3 " " = 11
Gravel cars.. 36.

LEASED ROADS.

The Fitchburg Company, in their lease of the Peterboro and Shirley Road agree to pay 7 per cent. annually upon its cost. For operating the Lexington and West Cambridge Railroad, the Fitchburg receives \$10,000 per annum 30 per cent. and balance of the receipts of the former.

Statement showing the Cost ; Mileage ; Cost per mile ; Gross Receipts ; current expenses ; net receipts ; rate of Dividend ; Receipts from Passengers ; Receipts from freight ; Miscellaneous ; Earnings per mile ; per centage of Gross Earnings ; Do. of net Earnings, of the Fitchburg Railroad from the date of its completion to the present time.

	Miles.	Cost.	Length in Miles.	Cost of Road and Equipment.	Gross Receipts.	Current Expenses.	Net Receipts.	Dividend.	Receipts from Passengers.	Receipts from Freight.	Miscellaneous.	Earnings per Miles.	Per cent. Gross Earnings.	Per cent. Net Earnings.	
				1846	1846	1846	1846	1846	1846	1846	1846	1846	1846	1846	1846
Watertown branch (including Waltham and Watertown and ice tracks).....	7 85-100	\$208,243 66	\$28,970	\$28,970	\$208,986	\$78,333	\$125,662	4							
Lancaster and Sterling, (to Feltonville).....	9 —	142,839 30	81,811	81,811	286,645	117,447	169,197	10							
Lexington and West Cambridge—leased.....	6 $\frac{1}{2}$ —		44,569	44,569	390,748	161,488	229,010	10							
Peterboro and Shirley, (to Mason Village)—leased..	23		80,000	80,000	486,266	286,044	200,219	10							
Watertown branch (including Waltham and Watertown and ice tracks).....	7 85-100	\$208,243 66	59	59	255,160	255,160	220,198	10							
Lancaster and Sterling, (to Feltonville).....	9 —	142,839 30	59	59	294,523	294,523	262,858	10							
Lexington and West Cambridge—leased.....	6 $\frac{1}{2}$ —		51	51	287,900	287,900	213,067	10							
Peterboro and Shirley, (to Mason Village)—leased..	23		51	51	232,787	232,787	258,370	10							
Watertown branch (including Waltham and Watertown and ice tracks).....	7 85-100	\$208,243 66	51	51	281,883	281,883	336,798	10							
Lancaster and Sterling, (to Feltonville).....	9 —	142,839 30	51	51	311,778	311,778	311,778	10							
Lexington and West Cambridge—leased.....	6 $\frac{1}{2}$ —		51	51	7,977	7,977	9,249	10							
Peterboro and Shirley, (to Mason Village)—leased..	23		51	51											

The increase of construction account for nine years has been equal to 150 per cent.; gross earnings over 300 per cent.; expenses, 500 per cent.;

net receipts, 75 per cent. The total earnings have been 67 per cent.; dividends, 69 $\frac{1}{2}$ per cent.; average rate of dividends 7 72-100 per cent.; average earnings 7 44-100.

*The returns this year are for 11 months only.

NOTE.—The entire road was not open during the whole of 1845. In the dividends, interest paid on assessments (\$60,615) in 1845, on new stock (\$10,094) in 1847, interest paid (\$11,008) in 1848, interest paid (\$25,700) in 1849, are not included.

ABSTRACT FROM THE ANNUAL REPORT FOR THE YEAR ENDING NOV. 30th, 1853.

The earnings of the company, \$626,659 78 were derived from the following sources viz:

From passengers on the main road and branches owned or leased.—\$192,670 86; from passengers to and from other roads \$89,212 85; from freight on main road and branches, owned by the company \$141,380 43; from freight to and from other connecting roads \$195,418 14; from mails \$5,478 66; from rents &c., \$2,499 29. Total income \$626,659 78.

The expenditures for working and repairing the road and other expenses were:

1st Maintenance of way.—for repairs of road \$44,532 86; repairs of bridges \$7,277 78; renewals and laying down of iron \$17,748 26; removal of ice and snow \$782,17; repairs of gates, fences for signal men &c., \$1,799 26; wages of switch, signal and watchmen \$15,148 72. Total \$87,284 05.

2d Motive power &c.—For repairs of locomotives \$20,834 06; new locomotives \$15,805 66; repairs of passenger cars \$8,877 08; new passenger cars \$4,596 84; repairs of merchandise cars \$7,979 94; new merchandise cars \$14,204 56; repairs of gravel and other cars \$499,35. Total \$72,247 49.

3d Miscellaneous.—For wood for engines \$77,112 92; coal \$3,296 70; oil 9\$,020 98; waste &c. for cleaning \$1,323 54; salaries wages and incidentals in passenger department \$46,287 79; ditto in freight department \$65,188 23; gratuities and damages \$3,030 29; taxes and insurance \$8,106 32; repairs, fixtures and furniture of buildings &c. \$6,608 46; interest \$3,911 97; rent of Peterboro and Shirley Road \$19,047 82; salaries of President &c. and other expenses not included in above items \$9,514 51. Total expenditures \$412,026 07.

The number of miles run was: by passenger trains 286,523; by freight trains 155,119; by other trains 19,957. Total 461,599.

Number of passengers carried 1,269,675: number ditto one mile, 17,314,206. Number of tons of merchandise carried 430,606; do. do. one mile 12,180,140. Number of passengers carried one mile, to and from other roads 6,711,912; number of tons ditto 8,124,446.

The proportion of receipts from local traffic to that derived from other roads was as follows:—
Passengers on main road and branches \$192,670 86; to and from other roads viz: Vt. and Mass. Cheshire, Worcester and Nashua, Stony Brook, Harvard Branch, Peterboro and Shirley \$89,212 85. Freight on main road and branches \$141,380 43; to and from other roads viz: those just mentioned (with exception of Harvard Branch) and Fitchburg and Worcester \$195,418 14.

The amounts expended in the several departments of construction are as follows, viz:

Graduation and masonry	\$741,048 35
wooden bridges	\$173,682 64
superstructure, including iron,	\$1,064,405 74
stations buildings and fixtures	\$542,109 30
land, land damages, and fences	\$716,871 15
engineering	\$49,188 28
Total	\$3,287,305 46
Equipment; locomotives	\$205,268 12
passenger and baggage cars	\$52,150 20
merchandise cars	\$169,149 82
Total	\$429,564 64
DR.	
Trial Balance. Nov. 30th, 1854.	
Graduation and Masonry	741,048 35
Wooden Bridges	173,682 64
Superstructure	1,064,405 74
Stations, Buildings and Fixtures	542,109 30
Land, Land Damages &c.	716,871 15
Locomotives	208,265 12
Passenger and Baggage Cars	52,150 20
Merchandise Cars	169,149 82
Engineering	49,188 25
Real Estate	27,669 66
Notes Receivable	72,976 98
Freight due and uncollected	20,547 01
Stock " materials for repairs"	28,893 89
Wood	26,440 00
Cash	20,372 86
Sundry Accounts	4,129 41
	\$3,917,899 88
CR.	
Capital Stock	3,540,000 00
Notes Payable	191,500 00
Contingent Fund	61,510 56
Profit and Loss	107,908 66
Unclaimed Dividends	2,757 00
Due Connecting Roads	24,223 61
	\$3,917,899 88

Erie Railroad.

Subjoined, our readers will find a communication addressed to the Directors of the Erie Railroad to which we solicit attention.

We are happy to state our conviction that the Erie Railroad Company has passed its weakest point, and that its course for the future will be one of improvement in the management of the road and its finances, as well as in popular estimation. In the latter particular we are satisfied that the road was never so strong as at the present instant. As its merits were originally taken for granted, so when it began to lose popularity, people became impressed with an idea of its worthlessness with almost equal facility. The recent crisis consequently forced our leading men, almost for the first time, to make the road, its condition, management and prospects, a subject of careful inquiry and investigation. The result has been that a well grounded conviction of the merits of the road has taken place of a mere assumption of success which led our people to embark in it in the outset, and of distrust, when its merits began to be doubted. The Erie consequently never occupied so strong a ground, nor had so many true friends as at the present moment, and really never had so bright a future before it.

With a firm conviction of its value there appears to be a disposition to place such men in its direction as will bring to it the greatest amount of strength, both financial and administrative. We hope to see a board at the ensuing election that shall secure the confidence of every person holding a share of its stock, or a bond, wherever such holder may be. As a large amount of bonds are held in Europe, we suggest such bondholders should be properly represented in the direction. We are satisfied that this may be so constituted as to se-

cure to the company confidence in its management. A road, the earnings of which are 15 per cent. gross upon its cost, and which are increasing at the rate of 20 per cent. annually, has in it abundant elements of success. We do not think that in England, where the earnings of their leading lines hardly equal eight per cent., such a road as the Erie would be despised of; nor in this country, in fact, as soon as our people come to their senses.

There have been some unusual causes for the extraordinary decline which has been recently suffered. In the first place nearly the whole floating debt owned by the company fell due in August and September; a blunder for which the present directors are not chiefly censurable. In providing for this debt, the company were driven to seek the help of parties whose real object, as subsequently disclosed, was to cripple and embarrass the company, instead of aiding it. There is no doubt we presume the person who endorsed the company's paper to the largest amount, and to whom a chattel mortgage was executed, did what he could to weaken public confidence in the road, and even boasted that only a few months would elapse before "he and the first mortgagors would have the road!" Such is an evidence of the public spirit which actuates one of our richest citizens. Thank Heaven, a basis of confidence is secured in public estimation which will place the Erie Road beyond the reach, or influence, of such sordid and grasping Shylocks.

We urge upon the company to take advantage of the favorable state of feeling which prevails, by adopting some measures for the liquidation of the Income bonds, or for meeting the future liabilities of the company as shall render impossible the recurrence of a crisis similar to what the company has just gone through. A permanent improvement either in the stocks or bonds cannot be relied upon till this is accomplished. With a competent system for the management of the road and its finances, Erie bonds might immediately be made one of the most popular securities in the country.

(For the American Railroad Journal.)

Erie Railroad.

To the President and Board of Directors of the New York and Erie R. R. Co.

GENTLEMEN—We have such a vivid perception of the rocks and shoals amid which it is your heavy task to pilot the Company's valuable freight, and so strong and clear an opinion not only of the dangerous scheme of navigation which has brought the Company where it is, but of the principles by which alone with any reasonable certainty the ship is to be put in trim for foul weather as well as fine, and to be absolutely insured against shipwreck, that we cannot forbear, at all risk of being deemed intrusive or importunate, to press upon you our views of the present evils, and our notions of the proper remedy. We have no interest to serve, but what is yours also, so that we hope we may not be deemed intrusive; we have no objection to be thought importunate, as we feel strongly that something wants doing very much more vigorous than we can see to be even thought of, and we are therefore very earnest and urgent indeed.

The principle adopted by railway companies in general, both here and in America of keeping per-

manently on foot a considerable bonded debt, is a very delicate one in application, and, as you must have already found out, will not bear overstraining. There is a class of investors who either from necessity (as trustees, &c.), or from choice (as quiet, wary unenterprising people) desire two things in their security, 1st, safe interest,—2nd, a return of their specific principal at a future day; but there is a second and much larger class who are content with that which the great bulk of investments must be, viz: annual income, be it safe or be it speculative, without any right to a specific return of principal.

Of this latter sort are nearly all the national debts of Europe (if they engaged to repay the principal the Governments would just smart for it, and at last be bankrupt). Of this latter class is made up the great substratum of all the works of public companies. It is not very difficult to prove in theory that a company having actually sunk its money in works and having no source except from revenue from which to pay off loans, ought not to have any loans except what are arranged to be so paid, but in practice it may be found safe and advantageous to keep on foot a moderate debt, but the safety and advantage are indispensable elements. The amount of debt ought to be kept so low as to avoid all chance of embarrassment, and the terms given ought to be such a moderation in the rate of interest as to recompense the company for its responsibility in undertaking, on a given day, at all risk of the money market, to reimburse a specific principal. Now let us ask how the Erie Company have kept these two principles in view. The indebtedness is to the capital stock as 5 to 2, in England the invariable rule is not to exceed 1 to 3. The consequence is that though the revenue is ample to cover the interest, it is public gossip and scandal that the Company is always in hot water—acceptances pressing on the market—temporary debts falling due, masses of bonded debt looming at various dates, some near, some far off—heavy interest paid on the former, and ruinous discounts submitted to on the latter—the evil day is always being staved off—the pressure is got over only to come on again. It is a mere question of time when the accumulated bribes and penalties required by such a system will eat up the \$10,000,000 of capital stock and make the indebtedness equal to the whole actual bona fide cost of the company's property. A very giant of a company must sink under twenty years of such process unless he rouse himself and say "It is enough—I will grapple with this bloodsucking system. I have a handsome income and will husband it till the money lenders become my suppliants instead of worrying me and bullying me while a clique of speculators make footballs of my bonds and pour contempt on my property."

As to the advantage of the heavy debt system it needs little arguing. No doubt some small advantage is at least generally secured by the sale or a bond for say \$1,000 at seven per cent. over the sale of a perpetual annuity of \$70, provided the bond be of the first order. In England this difference may be on an average equal to one-quarter per cent. per annum; but in times of tight money, it is just the reverse, the well secured annuity (or preference stock) will sell to pay 4½ to ¾ per cent. when the Company are giving 5 per

cent. and a commission for money on bonds. In fact our preference stocks, standing in order between the bonds and the common or ordinary share capital, have become a very popular and favorite security; and so most distinctly they would become in America, if the companies would have the energy to adopt and gradually work into practice the following system: 1st, a bonded debt of not more than one-third of the whole outlay of the Company, (say in the proportion of 1 of debt to 2 of preference stock and ordinary stock together); 2nd, preference stock not exceeding another third part; 3d, ordinary stock.

If the Erie Company could attain this position, such bonds would be first class, and would require no bribes nor discounts for their renewal, the preference stock would become very popular in England and we think at home also; and the ordinary stock would assume a very different standing by being set free from the fear of embarrassment and bankruptcy from the pressure of inferior bonds, floating debt, &c., &c., and by the energies of the Directors being left free to the one great duty of developing the revenue of the Company instead of being ever on the rack with the duties of complex financing, duties which, we dare say, they discharge with great diligence and much anxiety, and in many cases with personal responsibility. What we want to urge is that with a little vigour all this may be put an end to entirely.

We, therefore, urge you, gentlemen, to lay all this state of affairs explicitly and candidly before your stockholders. Lay before them some scheme for getting rid of all that debt which now keeps the Company in hot water, and depresses both bonds and shares in the market, and makes the income of the shares entirely unreliable. Call them together and get their sanction to such a scheme: go for legislative authority if needful, and put the scheme to work. Our plan is as follows. It is the result of long deliberation, with as full a knowledge of the Company's affairs as we can get on this side of the water.

Procure legislative authority to issue a seven percent. preference capital, equal to your ordinary stock, say \$10,500,000 and power to pay it in lieu of cash as dividends on ordinary stock. The proceeds of this preference stock to be applied solely in paying off debts or buying up bonds in the market. This stock not to be sold under par, and the interest to be paid with sacred regularity.

The permanent ultimate debt of the Company to be fixed at \$18,000,000, the total of the mortgages; the total capital would thus be \$34,000,000, or you might have it \$36,000,000 by enlarging the ordinary shares and preference stock to \$11,000,000 each. Any debt beyond this to be extinguished, and any extra outlay needed, to be provided out of revenue.

We suppose now the bonds debts &c. are about \$25,000,000, interest \$1,750,000; the clear revenue even now cannot be less than \$2,500,000, and we cannot be wrong in saying that if the board could coolly attend to it, it would be immediately \$2,750,000, per annum. This leaves \$1,000,000 annually clear to get the company out of its difficulties, but say \$900,000. Set aside \$150,000 as a reserve fund for extra works extinguishing debts, &c., &c., and then systematically for a series of years use the balance in redeeming the company's debt and non-mortgage bonds, call these at

present \$11,000,000, and even assume that the net revenue will not further increase, and without touching the \$150,000 annual reserve fund, the whole would be redeemed in fifteen years; but taking into account the discounts at which bonds might be picked up at suitable opportunities of selling the preference stock at par and the probable large increase of net revenue, possibly the whole thing might be done in ten or a dozen years; during the whole of which time the only privation of the old shareholders would be a very regular, full and close division of profits in the shape of a prime security (instead of irregular unreliable dividends in cash) but with abundant compensation and advantages on every other ground.

At present we cannot recommend the shares to our friends, but with such a change as this, and the certainty that time would clear off old embarrassments we could recommend them very cordially, and no doubt should buy very largely.

Let this plan be vigorously put in force, and we will guarantee that all Erie Railroad securities will at once take a much higher stand and you will set a high example of reform for all other companies to follow; and a seat at the Erie Board will be a pleasant place for a right minded man of business to sit at, instead of being what you must find it now a place of harassing and tormenting anxiety.

We are, Gentlemen

Your most obedient servants

(signed) HESELTINE & POWELL.

LONDON, September 1st, 1854.

Sunbury and Erie Railroad.

This company appears to have got into trouble with the City Council of Philadelphia, which threatens to embarrass its operation and to postpone the construction of its road.

The Sunbury and Erie Railroad has been a prominent scheme in Pennsylvania almost from the date of the earliest railroad, but without being able to command the means for its construction. There being no strength upon its route, the assumed importance of the road to the trade of Philadelphia has never been sufficiently felt to induce her citizens to undertake its construction. It consequently remained in abeyance till the recent railroad mania caught hold of that city, under the influence of which her council voted to subscribe \$2,000,000 to the stock of the road, provided an equal amount of other subscriptions could be procured. These were nominally obtained, and upon the faith of them the city subscriptions were made.

The conditions precedent to the city subscription were as stated, with an additional one, that upon the outside stock, 10 per cent. in cash should be paid. These conditions were virtually complied with. It was of course supposed, that the payments upon the city subscription, and those made by other parties, would proceed *pari passu*. But as usual in such cases, the subscriptions made to secure that of the city, turn out to have been made (with one or two exceptions, which were subsequently released by the company,) by parties unable to respond; and the company, pressed for money, have succeeded in obtaining about \$1,250,000 from the city, while only one instalment has been paid by the other stock-

holders. These facts coming to light, the City Council took the matter in hand, and report among other things, the facts stated. This report and the proceedings of the company have given rise to a great deal of angry newspaper and personal controversy in Philadelphia, and threatens as stated, to upset the road altogether.

The result is a necessary consequence of the unnatural alliance that had been formed. Private enterprise refused to take up the project. It could not see its way clear to save the money to be put into it. But the people of Philadelphia were persuaded to do *collectively*, what they would not do *individually*. They voted to *lend* their credit to the road while as individuals they would not take a penny of its stock.

To make up the necessary balance, resort was consequently had to parties who had nothing to invest; *operators*, who subscribed the requisite amount, not as an *investment* but as a means of making money out of the city and the company. With much ado they pay up the first instalment which gave the company the keys to the city treasury, since which not a penny has been received from any other source.

We are not surprised at the result. A different one was hardly possible. If a city like Philadelphia expects to find itself a match for such men as Mr. Crane and his associates, they are [much] mistaken. The result shows that they were no match. It is always so. This is the reason why we object to having such a city as Philadelphia subscribe in her *corporate* capacity to railroads. We lay it down as a cardinal principle that no road which does not promise to pay on its cost should be built, and when the citizens of a town of 500,000 people see no inducement in a proposed road, neither in the income nor business to be derived from it, it is conclusive evidence to our minds that the city should not undertake to do what private enterprise, and private interest will not. We are opposed to all such sneaking ways of avoiding responsibility. There is a plenty of money in Philadelphia. If her merchants believe the road would give her the trade of the Lake, they would not hesitate an instant to build it; or if believing so, they will not build it, they ought not to have it.

The untoward result created not a little indignation on the part of the city press through which alone the public sentiment of the city is audible to us; but without good cause we think. The City Council voted and paid away its securities willingly and freely. It consented to go into copartnership with Mr. Crane and his associates, a man whom the report referred states had not credit for a dollar. Such men never expect to pay a dollar in such transactions. They expect to make through a contract for construction, or by some slight of hand, a sum equal to that which they are called upon to pay; so that let a city like Philadelphia agree to furnish one-half of the cost of a road, and ten to one, it will furnish the whole. Operators who are up to sharp practice, would not only secure such a result with ease, but will often do better. When a city goes into copartnership with such men, they must not complain at being overreached; neither have they a right to turn savagely upon the company's officers, as we see they have upon Mr. Cooper, the President, for not doing things in that regular and

formal manner expected from a person when his pockets are stuffed with cash. The company expected to get the road by giving \$2,000,000. That was for a problem set Mr. Cooper to solve. He could not build it for that sum though he appears to have tried hard to do so; and in his efforts may have done some indiscrete things, and exposed himself to censure.

Perhaps there is not much wisdom in telling the Philadelphia people that nobody so much to blame in the transaction as themselves. If they will not put their own money into the road, we should like to know upon what ground they expect strangers to do so. The very fact that they had to go out of the State for subscriptions by which to attach the liability of the city shows the object with which such subscriptions were made, which was to make money out of the road instead of building it. Men of sense will not put themselves on a par with a professed and unscrupulous "operator," and that a city should do so, shows it to be as much wanting in sense, as such corporations we supposed to be in conscience.

Another evidence of the profound wisdom of municipal bodies is to be found in the motive that led to a cancelling of the lease of the lower part of the Sunbury and Erie Railroad to the Catawissa Company. The former being in want of money before the city subscriptions could be reached, applied to the Catawissa Company for aid by an endorsement of the bonds of the former, and as a consideration therefor, executed a lease of a portion of its road as before stated. But the Catawissa Road has an ugly look toward New York, where we believe it is controlled. In the opinion of the sage legislators of Philadelphia it was not safe to leave commerce to determine its own routes to market. Almost the first thing done therefore after the city espoused the project, was to cancel the aforesaid lease, by taking up the endorsed bonds, which was done by issuing an equal number of Philadelphia sizes, or a par security, for one we should say to be dear at 75. It strikes us that this specimen of financiering is about on a par with a policy which takes the most effectual step to render a road unprofitable by damming up its best outlet. After such a step would any person take stock in the road as an investment? Certainly not. The city must now build the road, if built at all. If it apparently receives aid from others, it will be only offered as a means of making money out of the city, which is certain to bear the load, as it has done.

After all that has been done and said in reference to this road, we should be sorry to see it abandoned. It will be remembered that the Legislature of the State at its last session compelled the Lake Shore Railroad to subscribe \$500,000 to the Sunbury and Erie at the price of a peaceful right of way through the State. We should be sorry to see a course taken which would render this stock valueless. We should like to see it built as the means of developing the resources of a rich but unsettled portion of the country. We should also like to see an additional avenue between the Laken and tide water. In fact we do not well see how Philadelphia is to get along without this road, if she presumes, as she proposes, to run with New York a race for commercial supremacy. It is the trade of the Lakes to which New York owes her greatness. It is not

difficult to see that every year, the trade of the interior is tending still more strongly toward their shores, upon which are springing up the seats of commerce and manufacture in the great valley. That great water line may be regarded as the axis of the commercial system of this country. For Philadelphia, therefore, to give up her Lake communication is to retire from the race before it is commenced; and to abandon to her rival with a struggle the field where the battle is really to be fought.

Mississippi Central and Tennessee Railroad.

The celebration at Bolivar on breaking ground on the Mississippi Central and Tennessee Railroad, connecting that place with Jackson, came off on Thursday of last week. About three thousand persons were said to be present. Speeches were made by Judge Milton Brown, Dr. A. Jackson, John V. Wright, and Mr. McCrary, after which the large assembly partook of a sumptuous barbecue.

The depot at Jackson has also been located, in the western portion of the city, not far from the residence of Mr. James Caruthers, and on his land—which event was celebrated there by a brilliant illumination.

Boston and New York Central Railroad.

The work of laying the rails on the Boston and New York Central Railroad, between Dedham and Summer street, has been commenced. The road is all in condition for the work from the junction at South Dedham to a point near the Boston line, some eight miles. The rail to be used is the compound rail, called also the male and female rail. It makes a continuous bearing, and is capable of being run at greater speed than any other pattern. This is the only rail of this kind in New England. Its weight is seventy pounds to the yard, of American iron, rolled expressly for this line by the Bay State Iron Company. The compound rail is in use on some twenty miles of the New York Central Road, and one-half of their second track is being laid with it.—*Boston Courier*.

Indianapolis and Peru Railroad.

At the meeting of the stockholders of this road, held at Noblesville on the 12th inst. the following gentlemen were elected Directors for the ensuing year:

Samuel N. Strader, Nathan Powell, Madison. John Wooley, Willis W. Wright, John Burke, David Macy, Indianapolis.

E. Nottingham, H. G. Finch, Noblesville. E. M. Sharp, Sharpsville. E. D. Murray, John Bohum, Kokomo.

A. A. Cole, Ira Mendenhall, Peru.

At a subsequent meeting of the Directors the following gentlemen were elected officers:

President—Samuel M. Strader.

Secretary—Theo. P. Haughey.

Treasurer—John Woolley.

Superintendent—E. G. Barney.

Alabama and Tennessee Railroad.

We observe by the Selma Reporter that this company are endeavoring to dispose of their bonds among the stockholders of their road, and the planters on the line. Although by reason of the comparative shortness of the crops of Alabama, these classes of people may not be able or disposed to take up the required amount of the company's securities, yet, the effort reflects creditably on the substantial character of the enterprise. The commanding position of the Alabama and Tennessee road, with the large local interest identified with the work, are, together, good guarantees of the ultimate profit of its stock and the permanent safety of its bonds.

Orange and Alexandria Railroad Extension.

It was reported yesterday that the grading on the whole line of the Orange & Alexandria Railroad extension, from Charlottesville to this city, had been let to energetic and responsible contractors. We trust the report may be true and that the opening of this splendid connection for Northern and Southern travel will, as a consequence, speedily be made.

The books for subscription to the stock of the Alexandria and Washington Railroad were opened 1st Tuesday, at the Mayor's office in Washington, in Georgetown, and in Alexandria. The capital stock required is \$300,000, two-thirds of which must be subscribed before a company can be organized; and two dollars per share of \$100 each must be paid at the time to the commissioners.

Manchester and Lawrence Railroad of New Hampshire.

The earnings of the Manchester and Lawrence Railroad for the four months ending July 31, were \$51,816, an increase of \$12,062 over the earnings of the corresponding months of last year. The Manchester Mirror states that the company commence operations in the new repair shop at Manchester this week. They have built in connection with the Concord road, a commodious freight house, and are also building a fine station house to be owned in common. The capital stock of the company is \$900,000.

No More Lands to be Reserved for Railroads.

The following letter from the Secretary of the Interior, addressed to the Hon. Alfred Iverson, gives the conclusion to which the Department has come in reference to public lands reserved for railroads. We find it in the Columbus Times of August 30.

DEPARTMENT OF THE INTERIOR, August 25, 1854.

Sir: In reply to yours of the 21st, requesting that the President will withdraw from sale, or private entry, the land within a belt of twelve miles on each side of the proposed Mobile and Girard Railroad, I have to state, that the whole subject of the withdrawal of lands for railroad purposes has recently been fully examined and considered, and that it has been determined, with the approbation of the President, to bring into market, with as little delay as practicable, all lands heretofore withdrawn for such roads as have not been favorably acted upon by Congress, and to decline hereafter to withdraw lands for such purposes, until after the grant shall have been actually made.

I am, sir, very respectfully, your obedient servant.

R. McCLELLAND, Secretary.
Hon. A. IVERSON, Columbus Ga.

SEPTIMUS NORRIS,

CIVIL, MECHANICAL & CONSULTING ENGINEER

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Having been engaged for many years professionally as Engineer upon many of our most important Roads, in their Location, Building and Equipment, and for the last 20 years practically engaged in the Manufacture of Locomotives, feels satisfied, he can save the Companies who may think proper to engage his services, many dollars, and loss by receiving imperfect machines, which have been built and put together hastily.

Address to No. 28 Summer st., Philadelphia.

A. B. Warford,

Chief Engineer, Susquehanna Railroad, Harrisburg, Pa.

NEW YORK STATE CANALS.—NOTICE TO CONTRACTORS. In pursuance of a resolution of the Contracting Board, notice is hereby given, that sealed proposals will be received by the undersigned for the construction and completion of the work upon the several Canals of this State, described in the following tabular statement at the times and places therein mentioned:—

ENLARGEMENT OF ERIE CANAL—EASTERN DIVISION.

Sealed proposals will be received at the Engineer's Office in the city of Utica, until Monday, the 9th day of October next, at 10 o'clock A.M., for the following described work:—

Amount of
Description of Work. Penalty in Bond. Time of Completion.

Section No. 16.....	\$7,500....	1st April, 1856.
" 36.....	3,300....	"
" 37.....	5,200....	"
" 57.....	7,000....	1857.
" 58.....	9,500....	"
" 59.....	6,000....	"
" 60.....	6,000....	"
" 61.....	6,000....	"
" 62.....	12,400....	"
" 75.....	5,100....	1856.
" 78.....	5,800....	"
" 131.....	5,300....	1857.
" 132.....	5,800....	"
" 133.....	6,000....	"
Lock No. 34.....	5,600....	1st July, 1856.
" 38.....	6,000....	"
" 40.....	6,200....	"
" 42.....	6,200....	"
Waste Weir on Sec. 120.	1,200....	1st April, 1855.

Bridge Abutments on Sections 15, 16 and 17..... 2,500.... 1st July, 1855.

Bridge Abutments on Sections 36 and 37... 1,300.... "

Bridge Abutments on Sections 57, 58 and 59 and Main street Bridge at Fultonville. 3,000.... 1855.

Bridge Abutments on Sections 60, 61 and 62..... 2,000.... "

Bridge Abutments on Sections 75 and 78... 1,500.... 1855.

Bridge Abutments on Sections 111, 115, 121 and 122..... 2,000.... "

Bridge Abutments on Sections 132 and 133. 900.... 1856.

Culverts on Sections 59 and 60..... 1,200....

Culverts on Section 75. 600.... 1st April, 1856.

Culvert at Van Vranken's on Section 18. 300.... 1st July, 1855.

Culverts on Sections 112 and 121..... 1,100.... 1st April, 1856.

Culverts on Sections 131, 132 and 133.... 1,200.... 1st July, 1856.

Completion of Phillips' Aqueduct..... 1,300.... 1st April, 1855.

BLACK RIVER CANAL.

Sealed proposals will be received at the Engineer's Office at Lyons Falls until Thursday, the 12th day of October next, at 10 o'clock A.M., for the following described work:—

Reservoir at Wood Hull

Lake..... \$3,700.... 1st Oct., 1855.

Reserv'r at N'rth Br'nch Lake..... 5,500.... "

11 Lock Houses from Boonville to Lyons Falls..... 1,000.... "

Sluices around Locks No's. 34 to 69 inclus. 2,900.... 1st Aug. 1855.

MIDDLE DIVISION.

Sealed proposals will be received at the Engineer's Office in the city of Syracuse until Saturday, the 14th day of October next at 10 o'clock in the forenoon for the following described work:—

Section No. 195..... \$6,400.... 1st April, 1857.

" 196..... 4,300.... "

" 197..... 7,200.... "

Centre Port Aqueduct. 3,400.... "

Port Byron do. 7,000.... "

OSWEGO CANAL.

Sealed proposals will be received at the En-

gineer's Office in the village of Fulton until Monday, the 16th day of October next, at 10 o'clock A.M., for the following described work:—

Section No. 3 below Salina..... \$4,000.... Ap'115th, 1857.

Section No. 4 below Salina..... 7,400.... "

Part of Sections 14 and 15, Gascon Rapids.. 12,700.... "

Part of Sections 16 and 17, above Phoenix.... 6,400.... "

Part of Sections 17 and 18, above Phoenix.... 7,700.... "

Part of Sections 22 and 23, Morseman level.. 6,500.... "

Section 27 at Fulton... 6,000.... "

CAYUGA AND SENECA CANAL.

Sealed proposals will be received at the Engineer's Office in the village of Seneca Falls until Tuesday, the 17th day of October next, at 10 o'clock A.M., for the following described work:—

Section No. 9..... \$7,200.... 1st April, 1856.

" 10..... 8,500.... "

Dam and Guard Gate on Section 10..... 5,600.... "

Culverts on Sections 1 to 5 inclusive..... 2,200.... "

Road and Farm Bridge Abutments on Sections 1, 4 and 10..... 2,300.... "

ENLARGEMENT OF ERIE CANAL—WESTERN DIVISION.

Sealed proposals will be received at the Engineer's Office, in the village of Albion until Wednesday, the 18th day of October next, at 10 o'clock A.M. for the following described work, between Lockport and Rochester:—

Section 276, with penalty in bond of.... \$9,000.

" 277, " " " " " 6,700.

" 278, " " " " " 7,000.

" 279, " " " " " 7,600.

" 280, " " " " " 8,400.

" 281, " " " " " 9,200.

" 282, " " " " " 5,700.

" 283, " " " " " 4,100.

" 316, " " " " " 6,800.

" 317, " " " " " 6,500.

" 318, " " " " " 9,400.

" 319, " " " " " 9,300.

" 320, " " " " " 9,200.

" 322, " " " " " 10,100.

" 323, " " " " " 8,000.

" 324, " " " " " 7,700.

" 325, " " " " " 7,100.

" 326, " " " " " 9,400.

" 327, " " " " " 7,600.

" 328, " " " " " 8,800.

" 329, " " " " " 9,700.

" 330, " " " " " 13,000.

" 331, " " " " " 8,500.

" 332, " " " " " 8,500.

" 333, " " " " " 12,200.

" 334, " " " " " 13,000.

" 335, " " " " " 8,000.

" 336, " " " " " 6,000.

Bridge Abutments on Sections 276 to 283 inclusive..... 3,600.

Bridge Abutments on Sections 316 to 329, inclusive..... 7,300.

Bridge Abutments on Sections 330 to 336, inclusive..... 5,400.

Culverts on Sections 276 to 283 inclusive..... 6,200.

" 316 to 320 " 5,500.

" 322 to 329 " 8,000.

" 330 to 336 " 4,000.

" 306 " 1,000.

Waste Weir on Section 330 " 500.

Iron superstructure of Genesee st. Bridge, Buff..... 1,500.

The superstructure of Genesee street Bridge and the Culvert on Section 306 to be completed by the 1st day of April, 1855, and the remainder of the above work by April 1st, 1856.

All propositions must be for a sum certain, as to the price to be paid or received, for each and

every kind of work; and no proposition not thus defined will be received or acted upon; and no proposition will be considered complete unless a price for every kind of work included in such proposition is distinctly and plainly inserted.

Every proposal shall be accompanied by an affidavit, endorsed thereon, of each person uniting in such proposal, that he is not directly or indirectly interested in any other proposal for the same work or materials, or any part of the same; that he has no agreement or understanding with any other person to become interested in any other proposal or contract for the same work or materials, or any part thereof; and that no other person than such as shall be named in the proposal is interested in the same, or has any agreement or understanding to become interested in any contract that may be made in pursuance of such proposal.

Every proposal for work or materials embraced in the above statements shall be accompanied with a bond to the people of this State, in the penalty specified opposite each kind of work in said statement, and which bond shall be signed by the party making such proposal and two or more responsible sureties, with such evidence of their responsibility as the contracting board shall require, and which sureties shall justify in sums equal in the aggregate to twice the amount of such penalty.

Each proposal must be accompanied by the certificate of the Supervisor of the town, and the County Clerk, or the County Judge of the county in which said surety shall reside, or any two of them, as to the responsibility of said sureties.

The persons to whom the work may be awarded will be required by the contracting board to give the bond for the payment of laborer's wages, as required by chapter 278, of the laws of 1850.

No acceptance of a proposal or award of a contract by the contracting board, and no contract made by the said board, or any interest in the same, shall be assignable to any person or persons, without the written consent of the Canal Commissioners.

Fifteen per cent of the amount of any work done or materials furnished, at the contract price thereof, shall be reserved by the canal commissioner, until the whole work, which is the subject of the contract, shall be fully and entirely completed.

In case the contracting board shall be of opinion that the proposals made at any meeting thereof, pursuant to any advertisement, are, in consequence of any combination or otherwise, excessive and disadvantageous to the State, they may decline all the said proposals, and advertise anew for the work and materials embraced therein.

Contractors will be required to receive and use in the work all such materials as have been previously procured and delivered for any of the above work, and allow such prices therefor as may be exhibited at the several offices prior to the letting.

The prices in the contract will be considered as including the expense of furnishing all the materials, and performing all the work, according to the plans, specifications and notices exhibited at the letting.

The persons to whom the work may be awarded, will be required to enter into contract for the performance of the work within ten days after the same shall have been awarded to him, upon the terms prescribed by the contracting board.

The name or names of the persons proposing, must be written out in full, with their places of residence.

The maps, plans, specifications, quantities of materials, propositions, blank contracts and bonds will be ready for examination at the several places specified, in this notice, ten days previous to the times specified for the several lettings.

Dated at ALBANY, Sept. 13th, 1854.

HENRY FITZHUGH,

FREDERICK FOLLETT,

CORNELIUS GARDINIER,

JAMES M. COOK, Comptroller.

JOHN T. CLARK, State Eng. and Surveyor.

ZERAH COLBURN,

ENGINEER AND AGENT

FOR the Design, Construction, Valuation and Purchase of Locomotives and Railroad Machinery.
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Having much experience in Patent Business he will undertake the preparation of Drawings, Specifications, Applications for Patent or Caveat and other papers necessary for inventors. He is able to give material assistance in bringing inventions and improvements in Railroad Machinery into favorable notice.

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REFERENCES.

The New Jersey Locomotive and Machine Co.
James Jackson, Pres't., Paterson, N. J.
Chas. W. Elliott, Vice Pres't., 59 Beaver str., N. Y.
Henry V. Poor, Esq., Editor Railroad Journal, New York.
Geo. D. Phelps, Pres't., Del. Lack and Western Railroad.
Geo. W. Whistler, Vice Pres't. New York & New Haven R.R.
William Raymond Lee, Esq., Boston.
Bush & Lovell, Wilmington, Del.
Oliver Hyde, Esq., Mayor City of Detroit.

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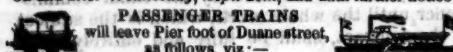
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New York and Erie R. R.

On and after Wednesday, Sept. 20th, and until further notice

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BUFFALO EXPRESS, at 6 a. m. for Buffalo.
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MAIL, at 8½ a. m. for Dunkirk and Buffalo, and intermediate stations.

ROCKLAND PASSENGER, at 3½ p.m., (from foot of Chambers Street) via Piermont, for Sudern and intermediate stations.

WAY PASSENGER, at 4 p. m., for Otisville, and intermediate stations.

NIGHT EXPRESS, at 5½ p. m. for Dunkirk and Buffalo.

EMIGRANT, at 6 p. m., for Dunkirk and Buffalo and intermediate stations.

On Sundays only one EXPRESS Train—at 5½ p. m.

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